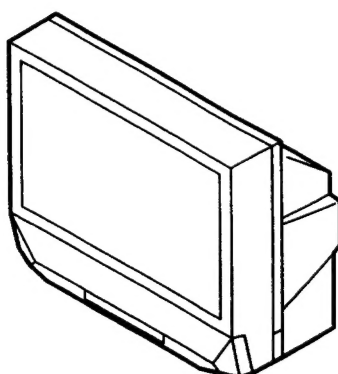


SERVICE MANUAL

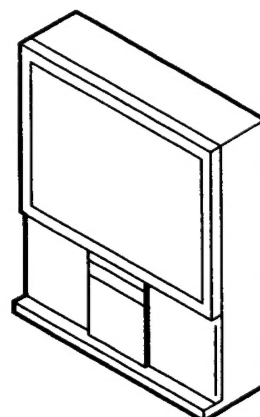
RG-1 CHASSIS

<u>MODEL</u>	<u>COMMANDER</u>	<u>DEST.</u>	<u>CHASSIS NO.</u>
KP-E41MH11	RM-901	ME	SCC-K61A-A
KP-E41MH11	RM-901	Hong Kong	SCC-K62A-A
KP-E41MN11	RM-901	GE	SCC-K63A-A
KP-E41SN11	RM-901	Austrarian	SCC-K64B-A

<u>MODEL</u>	<u>COMMANDER</u>	<u>DEST.</u>	<u>CHASSIS NO.</u>
KP-E53MH11	RM-901	ME	SCC-K61B-A
KP-E53MH11	RM-901	Hong Kong	SCC-K62B-A
KP-E53MN11	RM-901	GE	SCC-K63B-A
KP-E53SN11	RM-901	Austrarian	SCC-K64A-A



KP-E41MH11/E41MN11/E41SN11



KP-E53MH11/E53MN11/E53SN11



※ Please file according to model size. ■

41

53

PROJECTION TV
SONY®

SPECIFICATIONS

Projection system

3 picture tubes, 3 lenses, horizontal in-line system

Picture tube

7 inch high-brightness monochrome tubes (6.3 raster size), with optical coupling and liquidcooling system

Projection lenses

High performance, large-diameter hybrid lens F1.0

Screen size

41 inches (KP-E41)

53 inches (KP-E53)

Television system

B/G, I, D/K, M

Color system

PAL, PAL 60, SECAM, NTSC4.43, NTSC3.58

Channel coverage

See "Channel coverage" at the bottom

Antenna

75 ohm external antenna terminal

Audio output (Speaker)

15 W x 2

Number of terminals

Video Input: 4, Output: 1

Audio Input: 4, Output: 1

S1 Video/S Video

Input: 4, Output: 1

Y: 1 Vp-p, 75 ohms, unbalanced, sync negative,

C: 0.286 Vp-p, 75 ohms

Power requirement

110 - 240 V AC, 50/ 0 Hz

Power consumption

175 W

Dimensions (w/h/d)

951x991x588 mm (KP-E41)

1164x1335x650 mm (KP-E53)

Mass

Approx. 56 kg (KP-E41)

Approx. 89 kg (KP-E53)

Supplied accessories

Remote commander RM-901 (1)

Size R6 (AA) battery (1)

Optional accessory

AV rack SU-E41 (KP-E41)

AV rack SU-E53 (KP-E53)

HK/UK

Receivable channel Channel display

Hong Kong, United Kingdom

B-21 to B-68 C21 to C68

Ireland

A to J C01 to C09

South Africa

4 to 13 C04 to C13

21 to 68 C21 to C68

AUSTRALIA

Receivable channel Channel display

Australia

AS-0 to AS-12 C00 to C12

AS-5A, AS-9A C13, C14

AS-28 to AS-69 C28 to C69

New Zealand

1 C00

2 to 3 C01 to C02

4 to 7 C06 to C09

8 C14

9 to 11 C10 to C12

CHINA/EURO

Receivable channel Channel display

China

C-1 to C-2 C01 to C02

C-3 C13

C-4 C03

C-5 C04

C-6 C14

C-7 to C-12 C06 to C11

C-13 to C-24 C21 to C32

C-25 to C-47 C38 to C60

C-48 to C-57 C61 to C70

Z-1 to Z-39 S01 to S39

Eastern Europe

R-1 to R-12 C01 to C12

R-21 to R-60 C21 to C60

Design and specifications are subject to change without notice.

Channel coverage

M E/ASIA/CATV W EURO

Receivable channel Channel display

E-2 to E-12 C02 to C12

E-21 to E-69 C21 to C69

S-01 to S-03 S42 to S44

S-1 to S-41 S01 to S41

Indonesia

1A C01

2 to 11 C03 to C12

Morocco

M-4 to M-7 C70 to C73

M-8 to M-10 C08 to C10

New Zealand

1 C01

2 to 11 C03 to C12

27 to 62 C27 to C62

AMERICA/CATV AMERICA

Receivable channel Channel display

2 to 79 C02 to C79

A-1 S99

A-2 S98

A-3 S97

A-4 S96

A-5 S95

A-6 S06

A-7 S05

A-8 S01

A to W S14 to S36

AA to CCC S37 to S65

JAPAN

Receivable channel Channel display

J-1 to J-62 C01 to C62

C-13 to C-32 C80 to C99

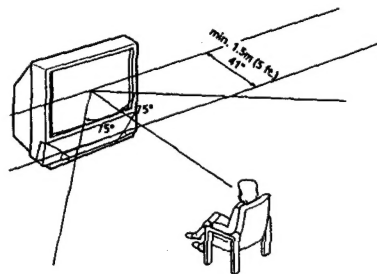
Getting Started

Installing the projection TV

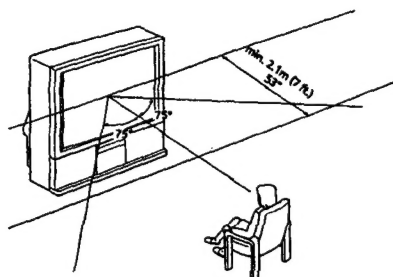
For the best picture quality, install the projection TV within the areas shown below.

Optimum viewing area (Horizontal)

KP-E41

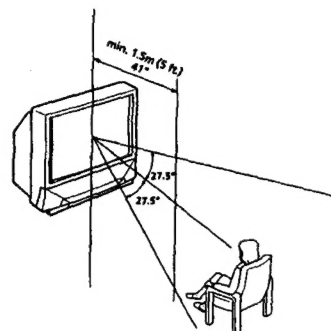


KP-E53

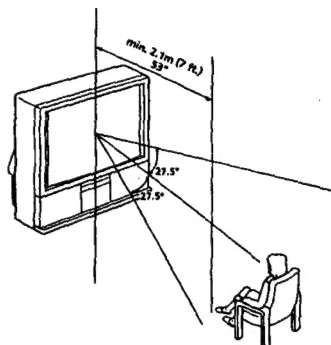


Optimum viewing area (Vertical)

KP-E41



KP-E53

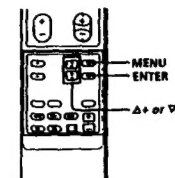


SECTION 1 GENERAL

The operation instruction mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

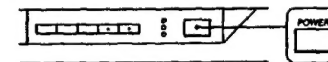
Changing the menu language

If you prefer Chinese to English, you can change the menu language. You can use the buttons on both the remote commander and the projection TV.

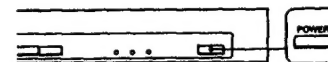


1 Press POWER on the projection TV.

KP-E41



KP-E53



2 Press MENU.



VIDEO CONTROL
AUDIO CONTROL
FEATURES
PRESET
LANGUAGE

3 Press Δ+ or ∇- to move the cursor (▸) to LANGUAGE.



VIDEO CONTROL
AUDIO CONTROL
FEATURES
PRESET
▸ LANGUAGE

4 Press ENTER.



LANGUAGE ▸
ENGLISH
CHINESE / 中文

5 Press Δ+ or ∇- to select CHINESE.



LANGUAGE ▸
ENGLISH
▸ CHINESE / 中文

6 Press ENTER.



語言 / LANGUAGE
英文 / ENGLISH
▸ 中文

7 Press MENU to return to the normal screen.



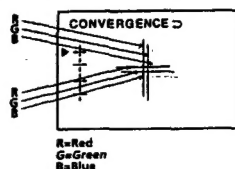
Adjusting the convergence (CONVERGENCE)

Before you use the projection TV, adjust convergence. The projection tube image appears on the screen in three layers (red, green and blue). If they do not converge, the color is poor and the picture blurs. To correct this, adjust convergence. After 20-30 minutes of turning on the power, adjust convergence.

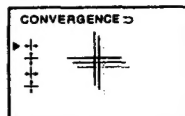
1 Press MENU.

2 Press Δ + or ∇ - to move the cursor (\blacktriangleright) to FEATURES and press ENTER.

3 Press Δ + or ∇ - to move the cursor (\blacktriangleright) to CONVERGENCE and press ENTER. The CONVERGENCE adjustment screen appears.

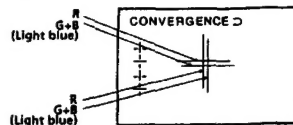


4 Press Δ + or ∇ - to move the cursor (\blacktriangleright) to the symbol showing the line you want to adjust, and press ENTER.



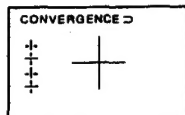
- + : Red vertical line (left/right adjustment)
- + : Red horizontal line (up/down adjustment)
- + : Blue vertical line (left/right adjustment)
- + : Blue horizontal line (up/down adjustment)

5 Press Δ + or ∇ - to move the line until it converges with the center green line, and press ENTER.



To move up/right, press Δ +.
To move down/left, press ∇ -.

6 Repeat step 4 and 5 to adjust the other lines until all three lines converge and are seen as a white cross.



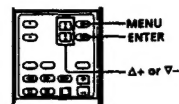
7 Press MENU to return to the normal screen.

Presetting channels

You can preset TV channels easily by storing all the receivable channels automatically. You can also preset channels manually or skip program positions (page 23). You can preset channels using the buttons on the projection TV as well as those on the remote commander.

Presetting channels automatically

You can preset up to 100 TV channels in numerical sequence from program position 1.



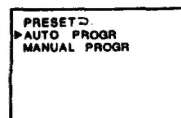
1 Press MENU.



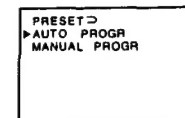
2 Press Δ + or ∇ - to move the cursor (\blacktriangleright) to PRESET.



3 Press ENTER.



4 Press Δ + or ∇ - to select AUTO PROGR.

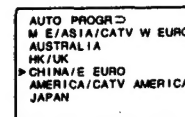


5 Press ENTER.



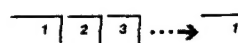
6 Press Δ + or ∇ - to select your area (channel system).

For the areas allocated in each channel system, see "Channel allocation" on page 27.



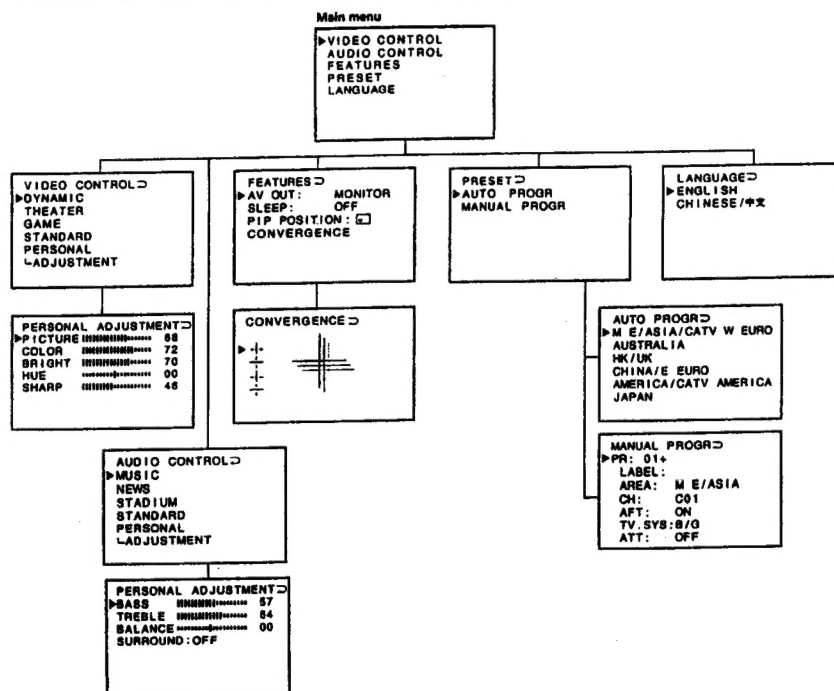
7 Press ENTER.

Presetting starts from program 1.



Introducing the menu

You can preset channels and set picture quality, sound, and other settings using the on-screen menus. You can use the buttons on both remote commander and the projection TV to operate the menus.



Getting back to the previous menu

Press Δ + or ∇ - to move the cursor (\triangleright) to the first line (\square) of each menu (except for the main menu), and press ENTER.

Cancelling the menu screen

Press MENU.

Note

- If more than 60 seconds elapse after you press a button, the menu screen disappears automatically.

Operations

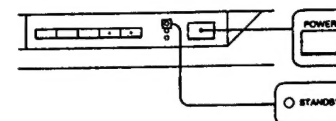
Watching the TV

1 Select the TV program you want to watch.

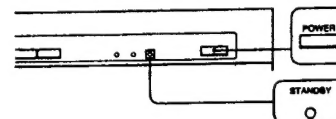
Press the number buttons or PROGR +/- . The projection TV turns on automatically and the selected program appears.

When the STANDBY indicator on the front of the projection TV is not lit, press POWER on the projection TV, and select the program position.

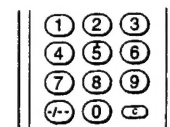
KP-E41



KP-E53



To select a program position directly
Press the number buttons.



To select a two-digit program position, press "-/-" before the number buttons.

For example, to select program position 25, press "-/-" and then "2" and "5."



To scan through program positions

Press PROGR +/- until the program position you want appears.



To select a channel directly

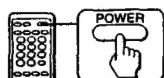
Press C (once for VHF/UHF channels, twice for cable TV channels), then press the number buttons (two-digit number for VHF/UHF channels, three-digit number for cable TV channels). For example, to select the VHF/UHF channel 4, press C, 0 then 4.

2 Press VOL +/- to adjust the volume.



Switching off the projection TV

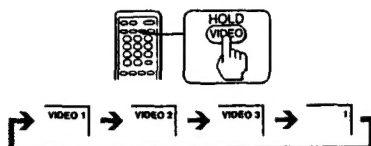
To switch off the projection TV temporarily, press **POWER** on the remote commander.
The **STANDBY** indicator lights.



To switch off the projection TV completely, press **POWER** on the TV.

Watching the video input

Press **VIDEO/HOLD**.

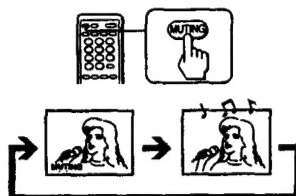


To watch projection TV, press **TV**, the number buttons or **PROGR +/-**.



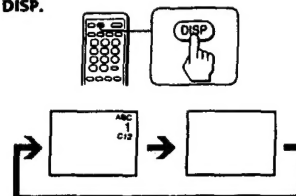
Muting the sound

Press **MUTING**.



Displaying on-screen information

Press **DISP**.



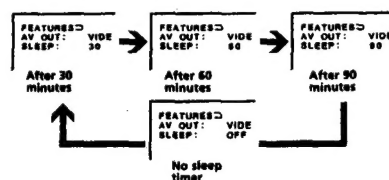
Note

- When you press **DISP**, the on-screen display shows the picture and sound settings as well, all of which disappear after three seconds.

Setting the Sleep Timer

You can set the projection TV to turn off automatically after the period of time you set.

- Press **MENU**.
- Press Δ or ∇ to move the cursor (\blacktriangleright) to **FEATURES**, and press **ENTER**.
- Press Δ or ∇ to move the cursor (\blacktriangleright) to **SLEEP**, and press **ENTER**.
- Press Δ or ∇ until the time (in minutes) you want appears.

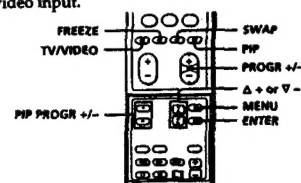


- Press **ENTER**.

To cancel the Sleep Timer, select **OFF**, or turn the projection TV off.

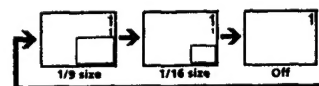
Using the Picture-in-Picture features

You can display a Picture-in-Picture (PIP) screen (small picture) within the main picture of a TV program or a video input.



Displaying PIP

Press **PIP**.



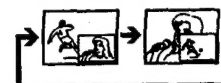
Selecting a TV program or video input in the PIP screen

To select a TV program, press **PIP PROGR +/-** (yellow buttons).

To select a video input, press **TV/VIDEO**.

Swapping pictures between the main and PIP screens

Press **SWAP**.



Changing the position of the PIP screen

- Press **MENU**.

VIDEO CONTROL
AUDIO CONTROL
FEATURES
PRESET
LANGUAGE

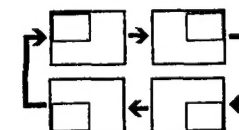
- Press Δ or ∇ to move the cursor (\blacktriangleright) to **FEATURES**, and press **ENTER**.

FEATURES \blacktriangleright MONITOR
AV OUT: OFF
SLEEP: OFF
PIP POSITION: \square
CONVERGENCE

- Press Δ or ∇ to move the cursor (\blacktriangleright) to **PIP POSITION**, and press **ENTER**.

FEATURES \blacktriangleright MONITOR
AV OUT: OFF
SLEEP: OFF
PIP POSITION: \square
CONVERGENCE

- Press Δ or ∇ to select the position you want.
Pressing Δ changes the position as shown below.
Pressing ∇ changes the position in reverse order.



Freezing the PIP screen

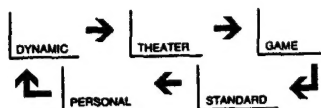
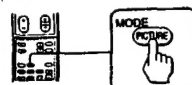
Press **FREEZE**.

To restore the normal picture, press **FREEZE** again.

Selecting the picture mode

You can select the picture mode using the menu as well as the PICTURE MODE button on the remote commander. Select VIDEO CONTROL from the main menu, then select the desired mode.

Press PICTURE MODE until the mode you want appears on the screen.



Select	To
DYNAMIC	Display more contrast picture
THEATER	Display darker and finely detailed picture suitable for movies
GAME	Display softer picture suitable for the video games
STANDARD	Display normal contrast picture
PERSONAL	Display the picture that is adjusted using ADJUSTMENT in the VIDEO CONTROL menu

Viewing a video game screen

Press PICTURE MODE until the GAME mode appears on the screen.

The screen changes to the optimum mode for video games with soft picture.

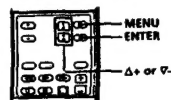
If the fixed (non-moving) pattern is on the screen for long periods of time
Keep the picture functions at low settings (see "Adjusting the picture setting" on page 14). If not, the image may be permanently imprinted on the screen.

Note

- To prevent imprints on the screen, the picture shifts horizontally and vertically about 5 mm every 2 hours. This is not a malfunction of the TV.

Adjusting the picture setting (ADJUSTMENT)

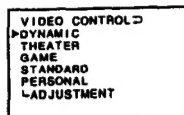
You can adjust the picture quality to suit your taste with the ADJUSTMENT option. The adjusted settings are stored in the PERSONAL option.



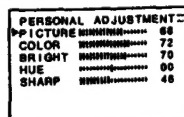
1 Press MENU.



2 Press Δ+ or ∇- to move the cursor (▶) to VIDEO CONTROL, and press ENTER.



3 Press Δ+ or ∇- to move the cursor (▶) to ADJUSTMENT, and press ENTER.



4 Press Δ+ or ∇- to move the cursor (▶) to the item you want to adjust, and press ENTER.

5 Press Δ+ or ∇- to adjust the item, and press ENTER.

Item	Press Δ+ to	Press ∇- to
PICTURE	Increase picture contrast	Decrease picture contrast
COLOR	Increase color intensity	Decrease color intensity
BRIGHT	Brighten the picture	Darken the picture
HUE	Make skin tones become greenish	Make skin tones become reddish
SHARP	Sharpen the picture	Soften the picture

6 To adjust other items, repeat steps 4 and 5.

7 Press MENU to return to the normal screen.

Note

- You can adjust HUE for NTSC color system only.

If the color of the picture is abnormal when receiving programs through the TV (antenna) terminal

Press COLOR SYSTEM on the projection TV or change the TV system setting from the menu as described below until the color becomes normal.

1 Press MENU.

2 Press Δ+ or ∇- to move the cursor (▶) to PRESET, and press ENTER.

3 Press Δ+ or ∇- to move the cursor (▶) to MANUAL PROGR, and press ENTER.

4 Press Δ+ or ∇- to move the cursor (▶) to TV SYS, and press ENTER.

5 Press Δ+ or ∇- to change the TV system until the color becomes normal.

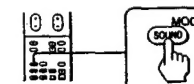
Note

- Normally set COLOR SYSTEM to AUTO.

Selecting the sound mode

You can select the sound mode using the menu as well as the SOUND MODE button on the remote commander. Select AUDIO CONTROL from the main menu, then select the desired mode.

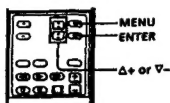
Press SOUND MODE until the mode you want appears on the screen.



Select	To
MUSIC	Listen to music programs. It gives sound with a live concert effect.
NEWS	Listen to news program. A person's voice can be heard clearly.
STADIUM	Listen to sports program. It gives sound with a sports stadium effect.
STANDARD	Listen to sound other than music, news or sports program.
PERSONAL	Listen to the sound that is adjusted using ADJUSTMENT in the AUDIO CONTROL menu.

Adjusting the sound setting (ADJUSTMENT)

You can adjust the sound quality to suit your taste with the ADJUSTMENT option. The adjusted settings are stored in the PERSONAL option.



1 Press MENU.

VIDEO CONTROL
AUDIO CONTROL
FEATURES
PRESET
LANGUAGE

2 Press Δ+ or ∇- to move the cursor (▶) to AUDIO CONTROL, and press ENTER.

AUDIO CONTROL
MUSIC
NEWS
STADIUM
STANDARD
PERSONAL
ADJUSTMENT

3 Press Δ+ or ∇- to move the cursor (▶) to ADJUSTMENT, and press ENTER.

PERSONAL ADJUSTMENT
BASS 57
TREBLE 64
BALANCE 00
SURROUND : OFF

4 Press Δ+ or ∇- to move the cursor (▶) to the item you want to adjust, and press ENTER.

5 Press Δ+ or ∇- to adjust the item, and press ENTER.

Item	Press Δ+ to	Press ∇- to
BASS	Increase the bass sound	Decrease the bass sound
TREBLE	Increase the treble sound	Decrease the treble sound
BALANCE	Increase the volume of right speaker	Increase the volume of left speaker

6 To adjust other items, repeat steps 4 and 5.

7 Press MENU to return to the normal screen.

Listening to surround sound

You can enjoy a surround sound effect that is like being in a movie theater or a concert hall when receiving stereo signals.

1 Press MENU.

2 Press Δ+ or ∇- to move the cursor (▶) to AUDIO CONTROL, and press ENTER.

3 Press Δ+ or ∇- to move the cursor (▶) to ADJUSTMENT, and press ENTER.

PERSONAL ADJUSTMENT
BASS 57
TREBLE 64
BALANCE 00
SURROUND : OFF

4 Press Δ+ or ∇- to move the cursor (▶) to SURROUND, and press ENTER.

5 Press Δ+ or ∇- to select ON, and press ENTER.

If the sound is distorted or noisy when receiving programs through the T (antenna) terminal

Press COLOR SYSTEM on the projection TV or change the TV system setting as follows until the sound becomes clear.

1 Press MENU.

2 Press Δ+ or ∇- to move the cursor (▶) to PRESET, and press ENTER.

3 Press Δ+ or ∇- to move the cursor (▶) to MANUAL PROGR, and press ENTER.

4 Press Δ+ or ∇- to move the cursor (▶) to TV SYS, and press ENTER.

5 Press Δ+ or ∇- to change the TV system until the sound becomes clear.

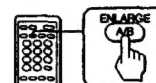
Note

- Normally set COLOR SYSTEM to AUTO.

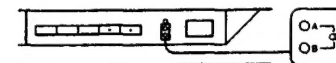
Selecting a stereo or bilingual program

You can enjoy stereo sound or bilingual program of NICAM and A2 (German) stereo systems. The initial setting is stereo sound.

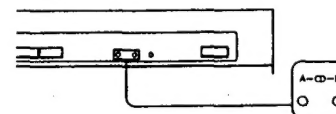
Press A/B/ENLARGE repeatedly until you receive the sound you want. The sound changes and the corresponding indicator lights up as follows:



KP-E41



KP-E53



When receiving a NICAM program:

Broadcasting	On-screen Display	Selected sound (Indicator lit)
NICAM stereo	NICAM	Stereo → Regular (A and B)
NICAM bilingual	NICAM	A → B → Regular (A) (B)
NICAM monaural	NICAM	NICAM monaural (A) Regular

When receiving an A2 (German) stereo program:

Broadcasting	On-screen display	Selected sound (Indicator lit)
A2 (German) stereo	STEREO	Stereo → Monaural (A and B)
A2 (German) bilingual	—	A → B (A) (B)

Receiving area for NICAM and A2 (German) stereo programs

System	Receiving area
NICAM	Hong Kong, Singapore, New Zealand, etc.
A2 (German) stereo	Australia, Malaysia, Thailand, etc.

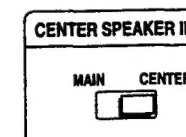
Notes

- If the signal is very weak, the sound becomes monaural.
- If the stereo sound is noisy, select "regular" or "mono."
- The sound becomes monaural, however, the noise will be reduced.

You cannot receive stereo broadcasts in mainland China.

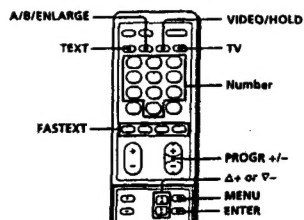
Setting the speaker switch

If you connect a Dolby Pro Logic-compatible amplifier to the CENTER SPEAKER IN terminals, you can use the projection TV speakers as center speakers. To use the projection TV speakers as center speakers, set the CENTER SPEAKER IN switch located at the rear of the projection TV to CENTER. To listen to the sound from the projection TV, set to MAIN. See page 25 for connection.



Viewing Teletext

TV stations broadcast an information service called Teletext via a local TV channel. Teletext service allows you to receive various information such as weather forecasts or news at any time. Some of the features, however, may not be available depending on the Teletext service.



Note on Teletext

- Teletext service is not available in Chinese.

Displaying Teletext

- 1 Select a TV channel which carries the Teletext broadcast you want to watch.
- 2 Press **TEXT** to display the Teletext. A Teletext page (normally the index page) is displayed on the left. If there is no Teletext broadcast, P100 appears in the top left corner of the screen.

To switch Teletext off, press **TV**.

Superimposing a Teletext page on the TV picture

Press **TEXT**.

Each time you press **TEXT**, the screen changes as follows:

→ Teletext → Teletext and TV → TV

Checking the contents of a Teletext service (INDEX)

When Teletext is switched on, you can display the Teletext menu.

- 1 Press **MENU**.

```

INDEX  CLEAR
TEXT   SUBTITLES
REVEAL : OFF
TIME PAGE
SUBPAGE
    
```

- 2 Press **Δ + or ∇** to move the cursor (▷) to **INDEX**, and press **ENTER**.

Selecting a Teletext page

Press the number buttons to enter the three-digit page number of the Teletext number you want.

If you make a mistake, re-enter the correct page number.

To access the next or previous page, press **PROGR +/-**.

Note

- When you request another Teletext page while viewing one Teletext page, the page scrolling may pause on a different page depending on the Teletext service, but the search will continue till the requested page is displayed.

Preventing a Teletext page from being updated (HOLD)

A Teletext page may consist of several subpages. You can stop the page scrolling in order to read the text at your own pace.

Press **VIDEO/HOLD**.

HOLD appears in the top left corner of the screen.

To resume normal Teletext operation, press **TEXT**.

Using FASTTEXT

This feature allows you to quickly access a Teletext page that uses FASTTEXT. When a FASTTEXT page is broadcast, a color-coded menu appears at the bottom of the screen. The colors of the menu correspond to the red (TV/VIDEO), green (FREEZE), yellow (SWAP) and blue (PIP) buttons on the remote commander. These colored buttons function as the FASTTEXT buttons in Teletext mode.

Press the colored button which corresponds to the color-coded menu.

The page is displayed after a few seconds.

Enlarging the Teletext display (ENLARGE)

Each time you press **A/B/ENLARGE**, the Teletext display changes as follows:

→ Enlarge upper half → Enlarge lower half → Normal size →

Revealing concealed information (REVEAL)

Sometimes pages contain concealed information, such as answers to a quiz. The reveal option discloses the information.

- 1 Press **MENU**.

- 2 Press **Δ + or ∇** to move the cursor (▷) to **REVEAL**, and press **ENTER**.

- 3 Press **Δ + or ∇** to select **ON**, and press **ENTER**.

To conceal the information again, select **OFF**.

Watching a TV program while waiting for a requested Teletext page (TEXT CLEAR)

- 1 Select the Teletext page to which you want to refer.

- 2 Press **MENU**.

- 3 Press **Δ + or ∇** to move the cursor (▷) to **TEXT CLEAR**, and press **ENTER**.

- 4 When the page number is displayed on the screen, press **TEXT** to switch the Teletext on.

To restore the normal Teletext reception, press **TEXT**.

Displaying subtitles (SUBTITLES)

Your Teletext service informs you if a TV program is subtitled.

- 1 Press **MENU**.

- 2 Press **Δ + or ∇** to move the cursor (▷) to **SUBTITLES**, and press **ENTER**.

Note

- If the subtitles are not broadcast on page 888, select the subtitle page using the number buttons.

Displaying a Teletext page at the requested time (TIME PAGE)

You can display a time-coded page (e.g. an alarm page) at the time you preset.

- 1 Press **MENU**.

- 2 Press **Δ + or ∇** to move the cursor (▷) to **TIME PAGE**, and press **ENTER**.

- 3 Press the number buttons to enter four digits for the desired time. For example, to enter 7:30, press 0, 7, 3 and 0.



At the requested time, the page appears on the screen.

To restore the normal Teletext reception, press **TEXT**.

Displaying a particular page among several subpages (SUBPAGE)

- 1 Press **MENU**.

- 2 Press **Δ + or ∇** to move the cursor (▷) to **SUBPAGE**, and press **ENTER**.


- 3 Press the number buttons or **PROGR +/-** to enter four digits for the desired subpage. For example, to display the second page of a sequence, press 0, 0, 0 and 2.



Using headphones

You can use headphones to enjoy the sound of the TV. This feature also allows you to enjoy the sound of PIP screens.

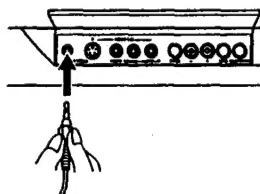
Listening to the sound of the projection TV with headphones

Insert the headphones into the  (headphones) jack located on the front panel of the projection TV.

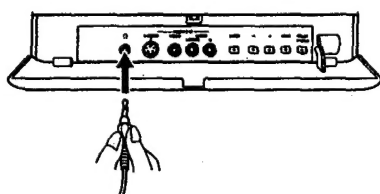
The sound from the speaker is shut off.

To adjust the headphones volume, press VOL +/-.

KP-E41



KP-E53



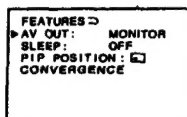
Customizing the projection TV

Using the AV OUT (advance rec-out) terminal

You can select the output signal from the VIDEO jacks at the rear of the projection TV.

The S Video output can be used only when MONITOR is selected.

- 1 Press MENU.
- 2 Press Δ + or ∇ - to select FEATURES, and press ENTER.



- 3 Press Δ + or ∇ - to select AV OUT, and press ENTER.
- 4 Press Δ + or ∇ - to select the output signal, and press ENTER.

Select	To
TV	Output the TV signal.
MONITOR	Output the signal of the picture you are watching as a main picture.

Note

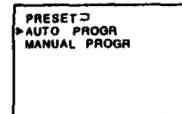
- Do not change the channel while recording with a VCR through the MONITOR/TV OUT jacks. If you change the channel, it also changes the channel you are recording.

Presetting channels manually

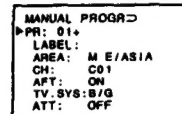
To change the program position for a channel or to receive a channel with a weak signal, preset the channel manually.

For example, preset a channel in program position 8.

- 1 Press MENU.
- 2 Press Δ + or ∇ - to move the cursor (\triangleright) to PRESET, and press ENTER.



- 3 Press Δ + or ∇ - to select MANUAL PROG, and press ENTER.



- 4 Select the program position to which you want to preset a channel.
 - (1) Press Δ + or ∇ - to select PR, and press ENTER.
 - (2) Press Δ + or ∇ - to select 8.

You can also select the program position with PROG +/- or the number buttons (e.g. for program 24, press +, 2 and 4).
 - (3) Press ENTER.
- 5 Select your area (channel system).

For the areas allocated in each channel system, see "Channel allocation" on page 27.

 - (1) Press Δ + or ∇ - to select AREA, and press ENTER.
 - (2) Press Δ + or ∇ - to select your area, and press ENTER.
- 6 Select a channel which you want to preset.
 - (1) Press Δ + or ∇ - to select CH, and press ENTER.
 - (2) Press Δ + or ∇ - until the channel you want appears on the screen.

You can also select the channel directly using the number buttons. Press C (once for VHF/UHF channels, twice for cable TV channels), then the number buttons (e.g., for channel 5, press 0 and 5).
 - (3) Press ENTER.

To preset other channels
Repeat steps 4 to 6.

Disabling program positions

By disabling unused or unwanted program positions, you can skip those positions when you press PROG +/-.

For example, disable program position 8.

- 1 Display the MANUAL PROG menu. (Follow steps 1 to 3 in "Presetting channels manually" on this page.)
- 2 Press Δ + or ∇ - to move the cursor (\triangleright) to PR, and press ENTER.
- 3 Press PROG + or - until 8 appears.
- 4 Press Δ + or ∇ - to select "-", and press ENTER.

To skip other program positions, repeat steps 3 and 4.

To restore the skipped program positions
In step 4 above, press Δ + or ∇ - to select "+", and press ENTER.

Customizing channel names

You can caption each channel number using up to five letters to be displayed on the screen.

- 1 Display the **MANUAL PROGR** menu. (Follow steps 1 to 3 in "Presetting channels manually" on page 21.)
- 2 Press Δ + or ∇ - to move the cursor (\blacktriangleright) to **PR**, and press **ENTER**.
- 3 Press Δ + or ∇ - to select the program position you want to caption and press **ENTER**.
- 4 Press Δ + or ∇ - to move the cursor (\blacktriangleright) to **LABEL**, and press **ENTER**.
- 5 Press Δ + or ∇ - to select a letter or number, and press **ENTER** for each caption space (up to five.)
Each time you press Δ + or ∇ -, the letter (number) changes as shown below.
A \rightarrow B \rightarrow ... \rightarrow Z \rightarrow 0 \rightarrow 1 \rightarrow ... \rightarrow 9 \rightarrow - \rightarrow / \rightarrow - \rightarrow + \rightarrow _ (space)
For the caption space you want to leave blank, select "-".
- 6 Repeat steps 2 to 5 to caption other channels.

To erase a caption

In step 5 above, select "- (space)".

Manual fine-tuning

Normally, the automatic fine-tuning (AFT) is operating. However, if the picture of a channel is distorted, you can use the manual fine-tuning function for the channel to obtain better picture reception.

- 1 Display the **MANUAL PROGR** menu. (Follow steps 1 to 3 in "Presetting channels manually" on page 21.)
- 2 Press Δ + or ∇ - to move the cursor (\blacktriangleright) to **PR**, and press **ENTER**.
- 3 Press Δ + or ∇ - to select the program position corresponding to the channel which you want to manually fine-tune, and press **ENTER**.
- 4 Press Δ + or ∇ - to move the cursor (\blacktriangleright) to **AFT**, and press **ENTER**.
- 5 Press Δ + or ∇ - to select **OFF**, and press **ENTER**.
- 6 Press Δ + or ∇ - to fine-tune the channel so that you get the best TV reception.
As you press these buttons, the frequency changes from -128 to +128.
- 7 After fine-tuning, press **ENTER**.
The fine-tuned level is stored.

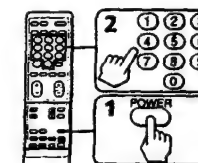
Improving TV signal

If the reception signal is very strong, you can attenuate it to obtain better picture reception.

- 1 Display the **MANUAL PROGR** menu. (Follow steps 1 to 3 in "Presetting channels manually" on page 21.)
- 2 Press Δ + or ∇ - to move the cursor (\blacktriangleright) to **PR**, and press **ENTER**.
- 3 Press Δ + or ∇ - to select the program position corresponding to the channel whose signal is very strong, and press **ENTER**.
- 4 Press Δ + or ∇ - to move the cursor (\blacktriangleright) to **ATT**, and press **ENTER**.
- 5 Press Δ + or ∇ - to select **ON**, and press **ENTER**.

Setting the remote command mode

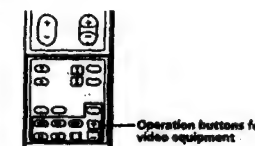
You can use the supplied remote commander to operate the TV and Sony video equipment, such as a VCR or multi-disc player. To operate Sony video equipment, first set the remote command mode for the video equipment you want to use.



- 1 Press and hold the **POWER** button in the VCR control area.
- 2 Press the number buttons that correspond to the remote command mode.

Mode number buttons	Remote command mode
0 and then 1	VTR1 (e.g., Beta format VCR)
0 and then 2	VTR2 (e.g., 8 mm format VCR)
0 and then 3	VTR3 (e.g., VHS format VCR)
0 and then 4	MDP (multi-disc player)

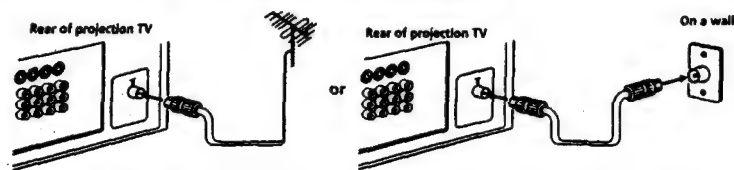
After setting the remote command mode, you can use the following buttons to operate the video equipment.



Connections

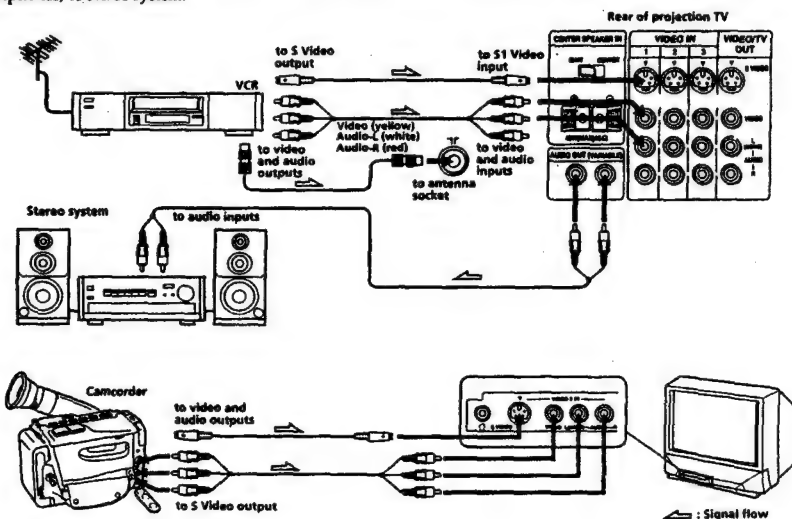
Connecting a VHF antenna or a combination VHF/UHF antenna—75-ohm coaxial cable (round)

Attach an optional IEC antenna connector to the 75-ohm coaxial cable. Plug the connector into the T (antenna) terminal at the rear of the projection TV.



Connecting optional equipment

You can connect optional audio/video equipment to this projection TV such as a VCR, multi-disc player, camcorder, headphones, or stereo system.



When connecting a monaural VCR

Connect the yellow plug to VIDEO and the white plug to AUDIO-L (mono).

If both S Video and video signals are input

The S Video input signal is selected. To view a video signal, disconnect the S Video connection.

Note on the video input


When no signal is input, the screen becomes black and on-screen display becomes dark.

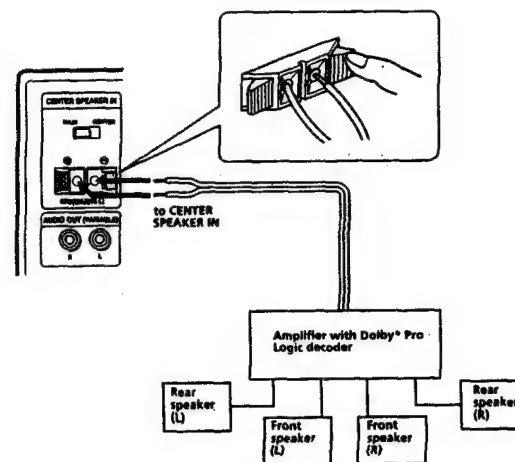
When connecting a VCR to the VIDEO 3 IN jacks

This projection TV is equipped with two sets of the VIDEO 3 IN jacks on the front and rear panels. Front and rear jacks are not available to be used at the same time. When using equipment connected, turn off other equipment not in use.

Connecting an amplifier with Dolby Pro Logic decoder

If you use an amplifier with Dolby Pro Logic decoder instead of the projection TV's audio system, you can still use the projection TV's center speaker.

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Troubleshooting

If you have any problems, read this manual again and check the countermeasure for each of the symptoms listed below.
If the problem persists, contact your nearest authorized service center or dealer.

Snowy picture Noisy sound



- Check the antenna.
- Check the antenna connection on the projection TV and on the wall.

Dotted lines or stripes



- This may be caused by local interference (e.g. cars, neon signs, hair dryers, etc.)
Adjust the antenna for minimum interference.

Double images or "ghosts"



- This may be caused by reflections from nearby mountains or buildings. A highly directional antenna may improve the picture.

Good picture Noisy sound



- Check the TV SYSTEM setting.

No picture No sound



- Press POWER.
- Press POWER to turn the projection TV off for 5 to 6 seconds, then turn it on again by pressing POWER.
- Check the antenna connection.
- Check the VCR connections.

Good picture No sound



- Press VOL +.
- Press MUTE.

No color



- Adjust COLOR in the VIDEO CONTROL menu's ADJUSTMENT option.
- Check the COLOR SYSTEM setting.

TV cabinet creaks

- Even if the picture or the sound is normal, changes in the room temperature sometimes make the TV cabinet expand or contract, making a noise. This does not indicate a malfunction.

Channel allocation

Areas allocated in each channel system

M E/ASIA/CATV W EURO

Afghanistan, Albania, Algeria, Austria, Bahrain, Bangladesh, Belgium, Brunei, Canary Islands, Cyprus, Denmark, Egypt, Finland, Germany, Ghana, Gibraltar, Greece, Iceland, India, Indonesia, Iran, Iraq, Italy, Jordan, Kenya, Republic of Korea, Kuwait, Lebanon, Liberia, Libya, Luxembourg, Malaysia, Malta, Mauritania, Mauritius, Maldives Rep., Morocco, Mozambique, Nepal, Netherlands, New Zealand, Nicaragua, Nigeria, Norway, Oman, Pakistan, Portugal, Qatar, Sarawak, Saudi Arabia, Seychelles, Sierra Leone, Singapore, Spain, Sri Lanka, Sudan, Swaziland, Sweden, Switzerland, Syrian Arab Rep., Tanzania, Thailand, Tunisia, Turkey, Uganda, United Arab Emirates, Western Sahara, Yemen Arab Republic, People's Dem. Rep. of Yemen, Yugoslavia, Zambia, Zimbabwe

AUSTRALIA

Australia, New Zealand

HK/UK

Hong Kong, Ireland, Lesotho, South Africa, United Kingdom

CHINA/EURO

Benin, Bulgaria, China, Congo, Czechoslovakia, Djibouti Republic, Gabon, Guadeloupe, Guiana, Guinea (P.P.R.), Hungary, Ivory Coast, Dem. People's Rep. of Korea, Madagascar, Mongolia, New Caledonia, Niger, Poland, Reunion, Rumania, Senegal, Tahiti, Togo, Former U.S.S.R., Vietnam, Zaire

AMERICA/CATV AMERICA

Bahama Islands, Barbados, Belize, Bermuda, Bolivia, Burma (UHF), Canada, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guam, Guatemala, Haiti, Hawaii, Honduras, Jamaica, Laos, Mexico, Panama, Peru, Philippines, Puerto Rico, Surinam, Taiwan, Trinidad & Tobago, U.S.A., U.S.A. (CATV), Venezuela

JAPAN

Burma (Myanmar) (VHF), Japan (VHF, UHF)

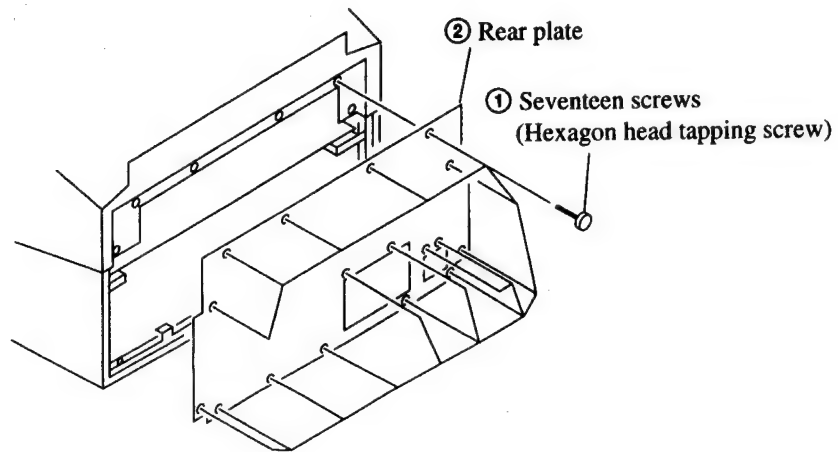
TV and color systems of each channel system

The TV system and color system are automatically set according to the channel system.

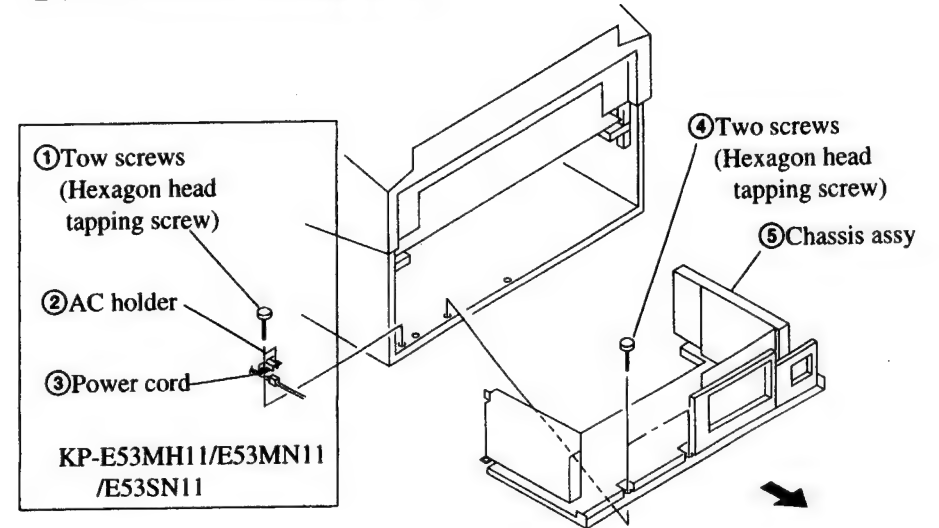
Channel system	TV system	Color system
M E/ASIA/ CATV W EURO	B/G, H: West European TV standard	AUTO
AUSTRALIA	B/G, H: Australian TV standard	AUTO
HK/UK	E: British TV standard	AUTO
CHINA/E EURO	D/K: East European TV standard	AUTO
AMERICA/CATV AMERICA	M: American TV standard	AUTO
JAPAN	M: Japan TV standard	AUTO

SECTION 2 DISASSEMBLY

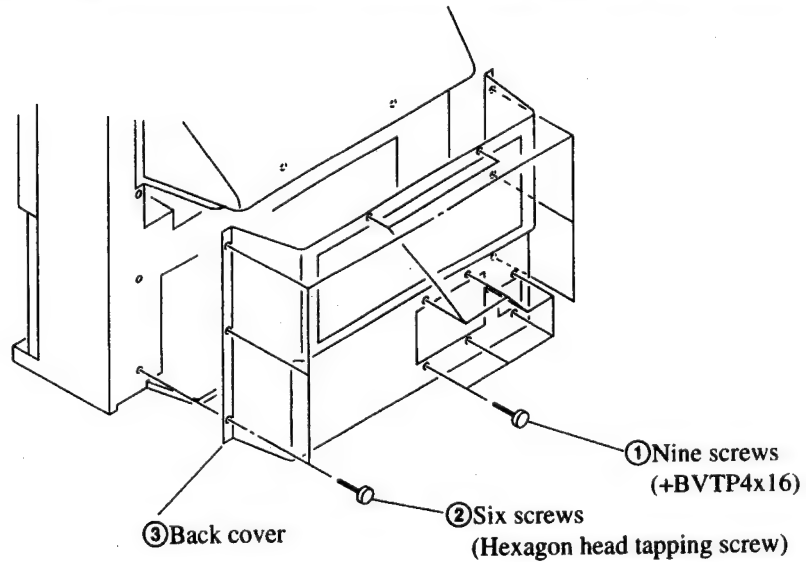
2-1-1. (1) REAR PLATE REMOVAL (KP-E41MH11/E41MN11/E41SN11)



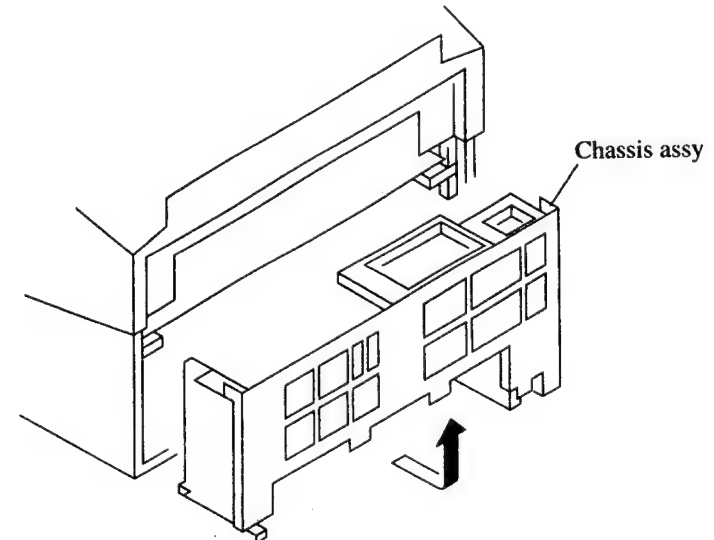
2-1-2. CHASSIS ASSY REMOVAL



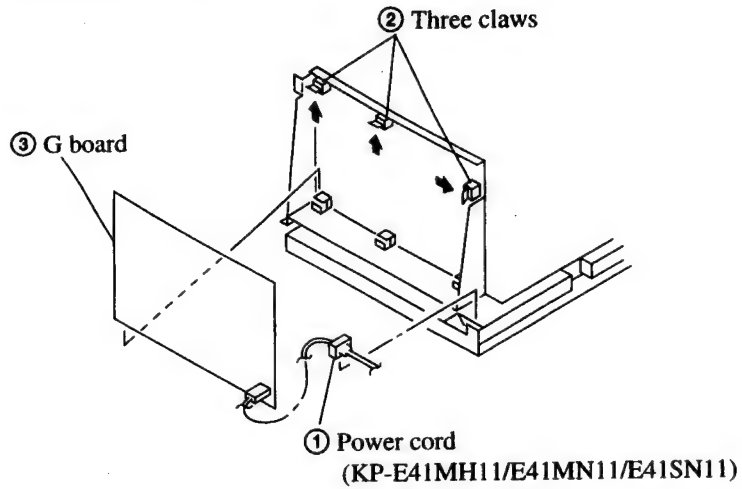
2-1-1. (2) BACK COVER REMOVAL (KP-E53MH11/E53MN11/E53SN11)



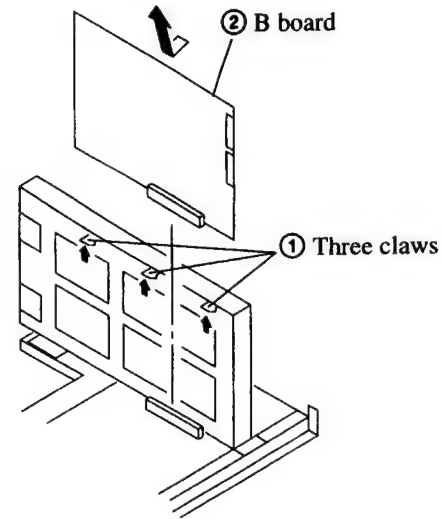
2-1-3. SERVICE POSITION



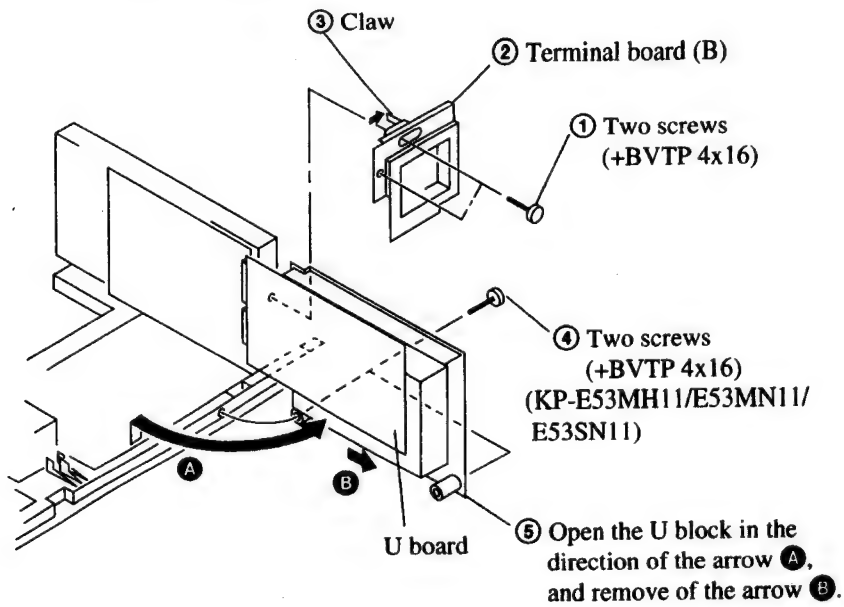
2-1-4. G BOARD REMOVAL



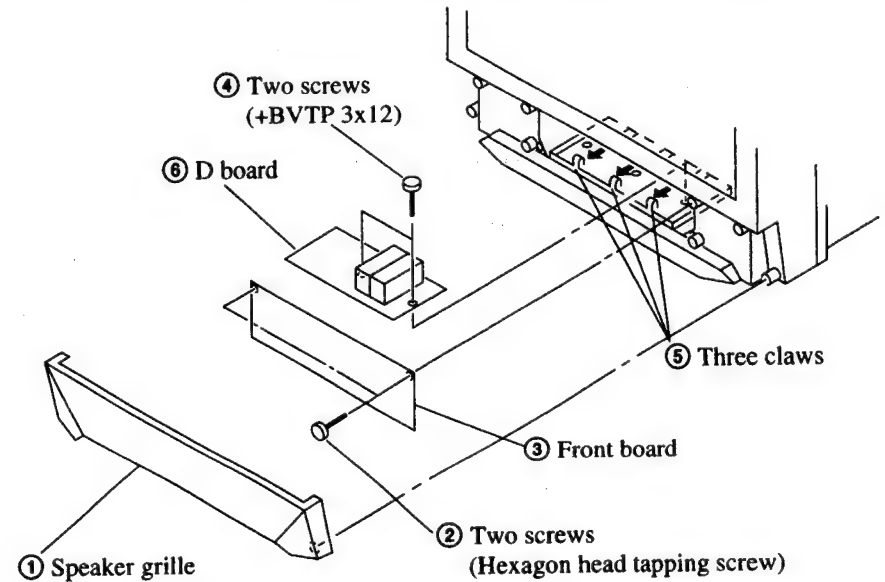
2-1-6. B BOARD REMOVAL



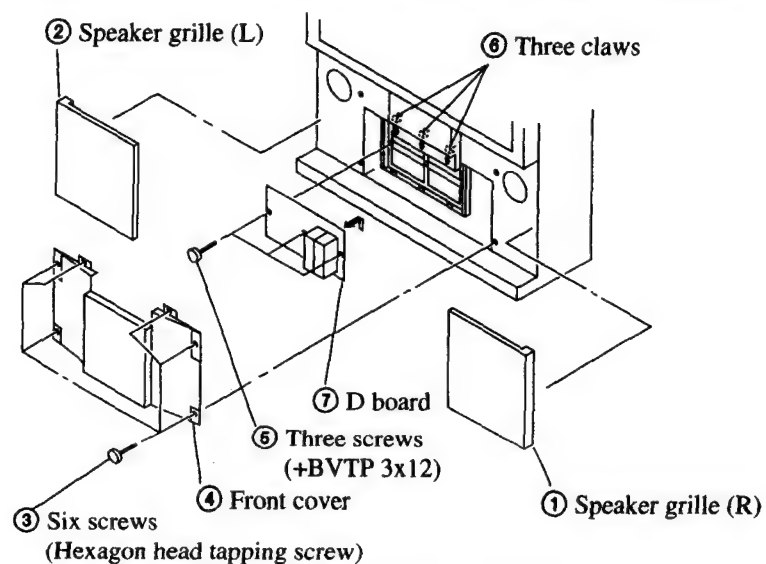
2-1-5. U BOARD REMOVAL



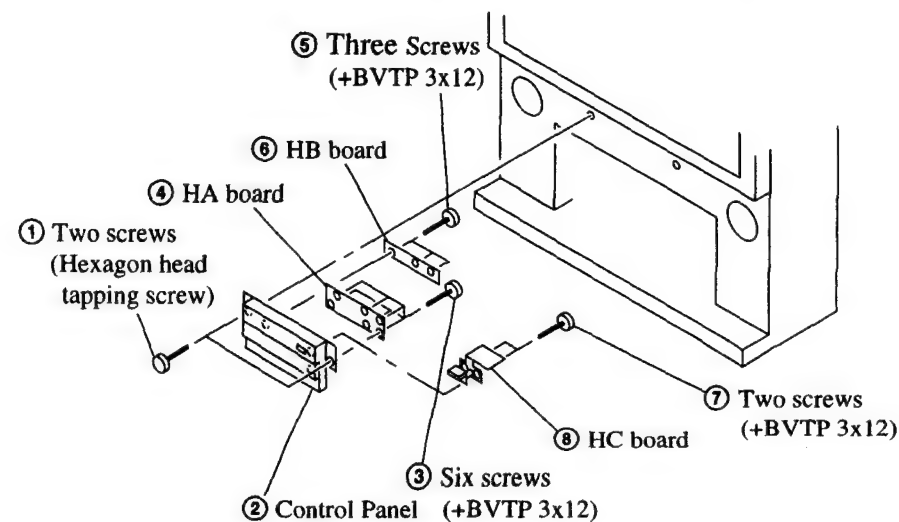
2-1-7. (1) D BOARD REMOVAL (KP-E41MH11/E41MN11/E41SN11)



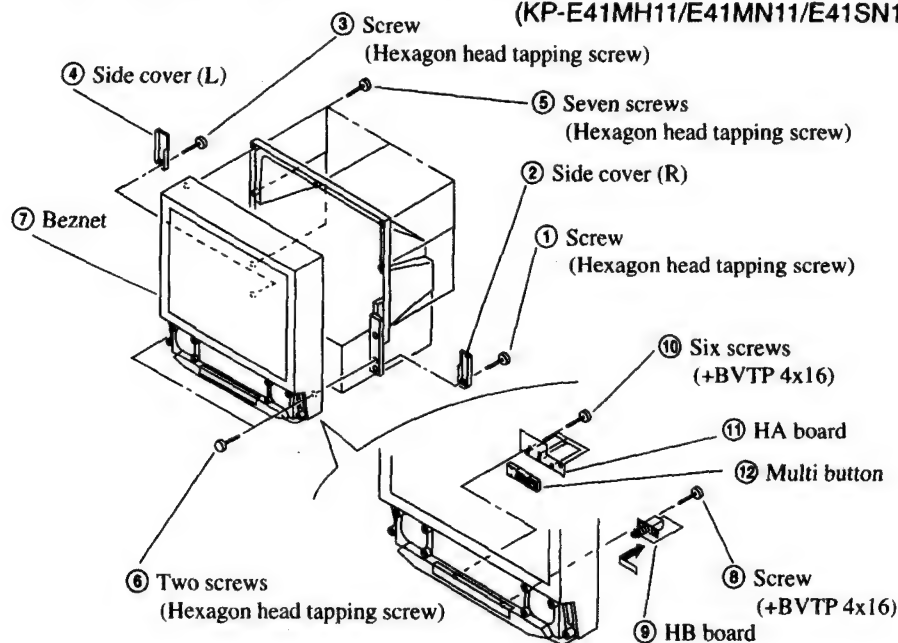
2-1-7. (2) D BOARD REMOVAL (KP-E53MH11/E53MN11/E53SN11)



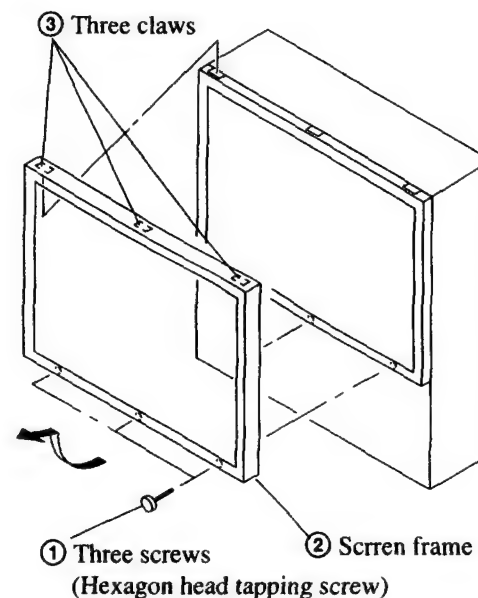
2-1-8. (2) HA AND HB BOARDS REMOVAL (KP-E53MH11/E53MN11/E53SN11)



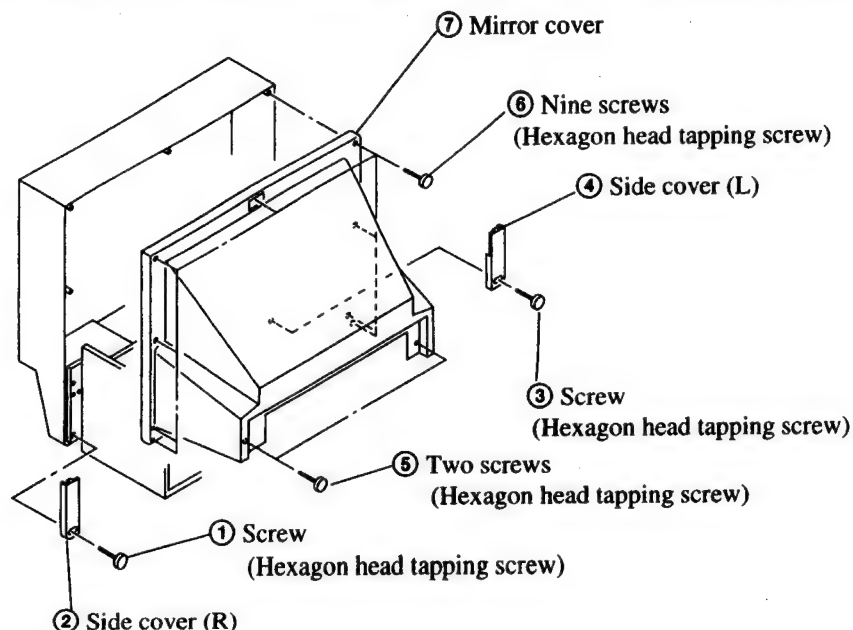
2-1-8. (1) BEZNET, HA AND HB BOARDS REMOVAL (KP-E41MH11/E41MN11/E41SN11)



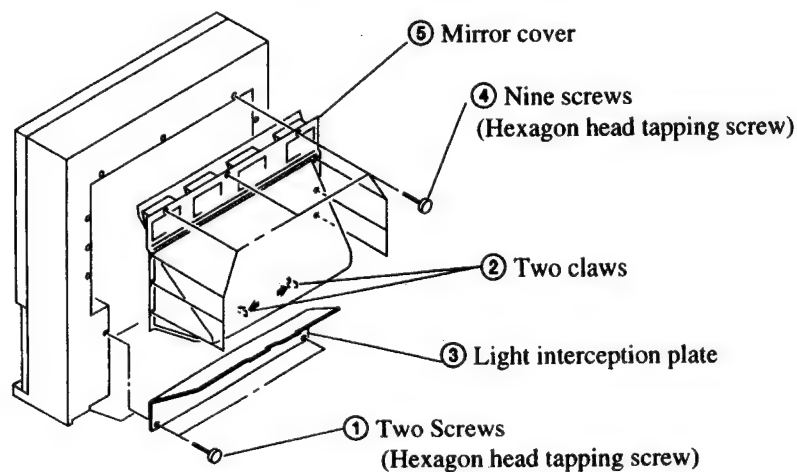
2-1-8. (3) SCREEN FRAME REMOVAL (KP-E53MH11/E53MN11/E53SN11)



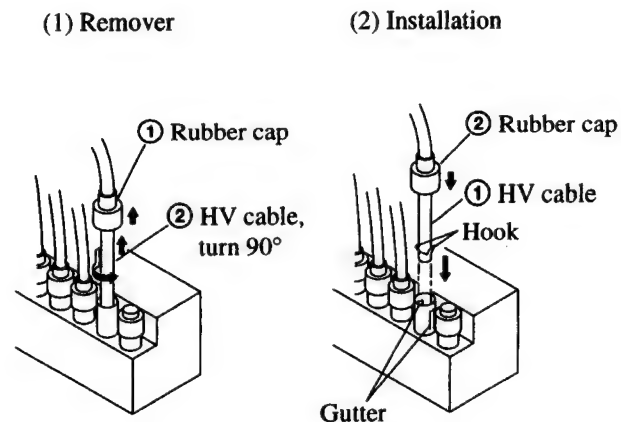
2-1-9. (1) MIRROR COVER REMOVAL (KP-E41MH11/E41MN11/E41SN11)



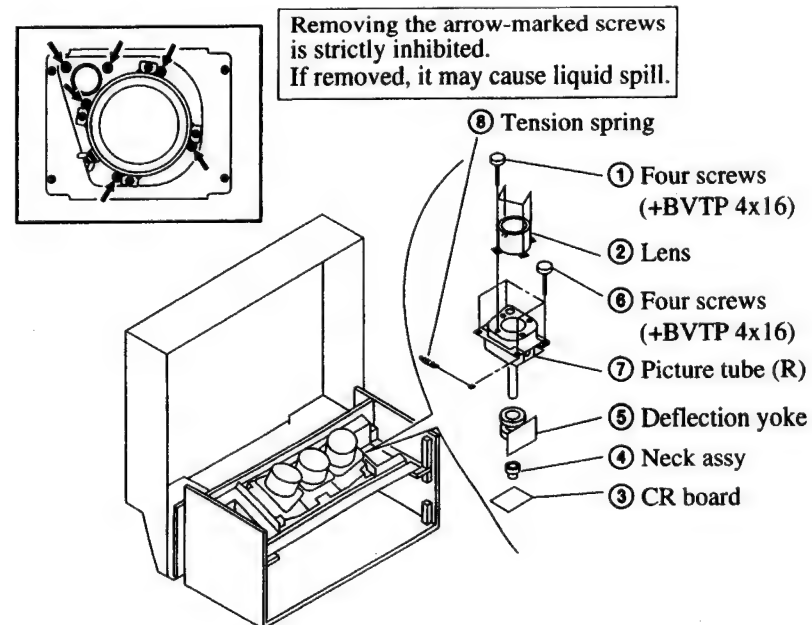
2-1-9. (2) MIRROR COVER REMOVAL (KP-E53MH11/E53MN11/E53SN11)



2-1-10. HIGH-VOLTAGE CABLE INSTALLATION AND REMOVAL

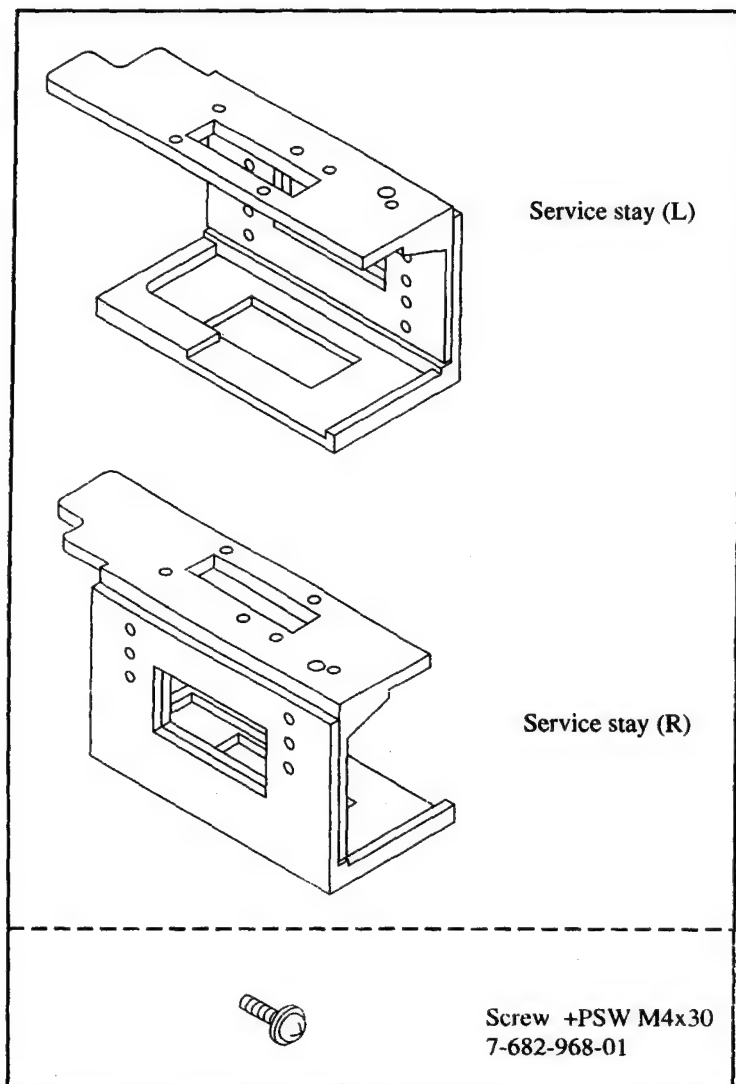


2-1-11. PICTURE TUBE REMOVAL



2-2.SERVICE STAY ASSY HOW TO USE AND CARRY BACK SERVICE STAY ASSY

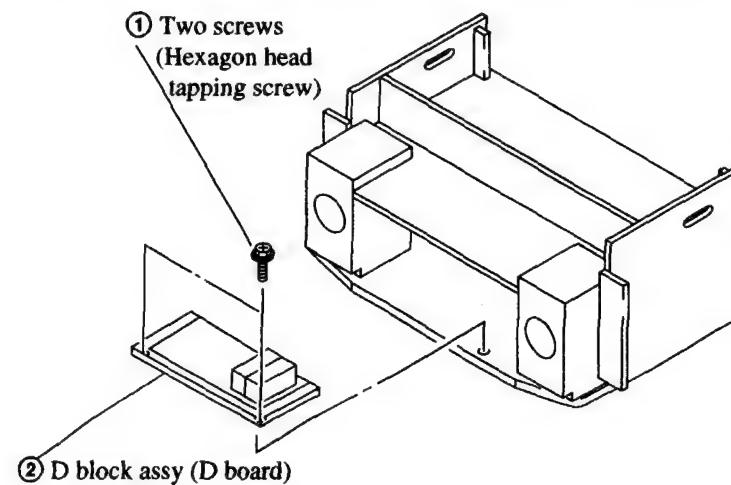
2-2-1.SERVICE STAY ASSY (X-4034-033-1)



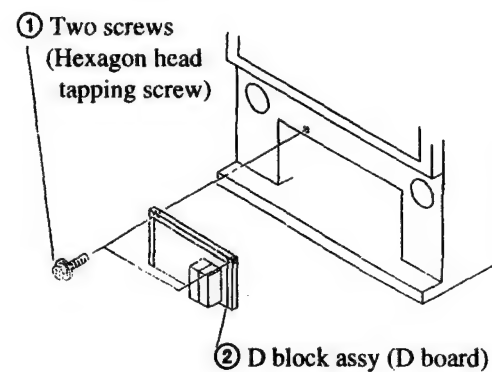
● PREPARATION

- 1) Remove the rear plate and chassis assy while referring to the instructions.
- 2) Remove the HA and HB boards while referring to the instructions.
- 3) Remove the mirror cover while referring to the instructions.
- 4) Remove the harnesses from the purse lock.
- 5) Remove the connector from the speaker. (U board : CN2004)

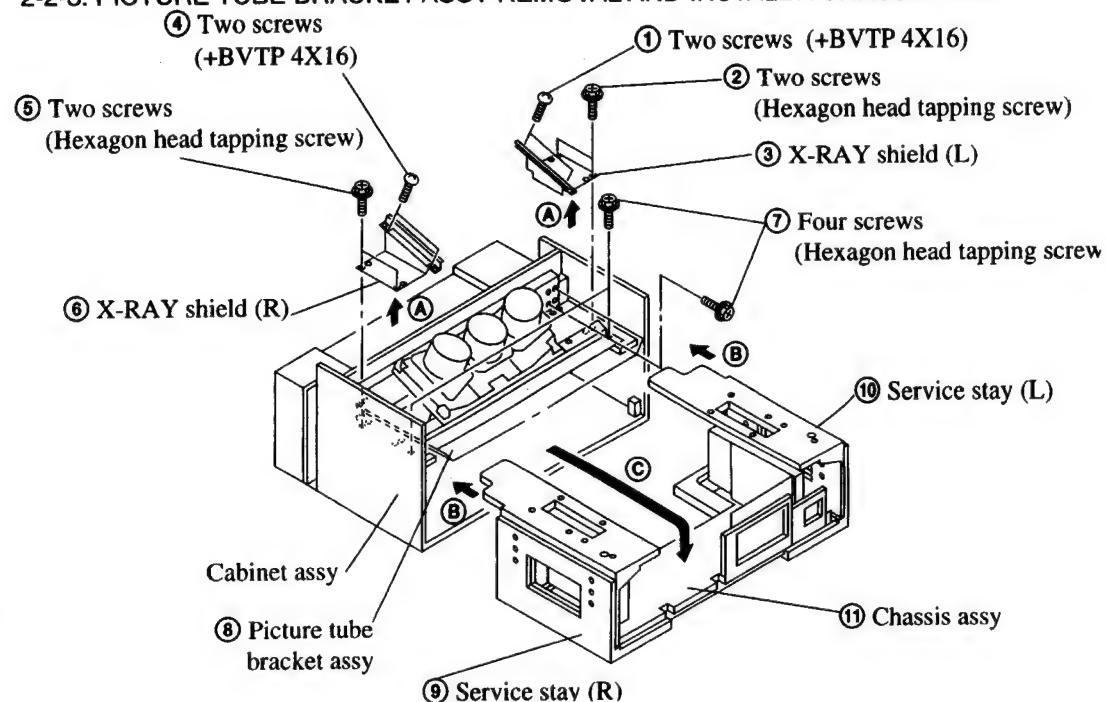
2-2-2. (1) D BLOCK ASSY REMOVAL (KP-E41MH11/E41MN11/E41SN11)



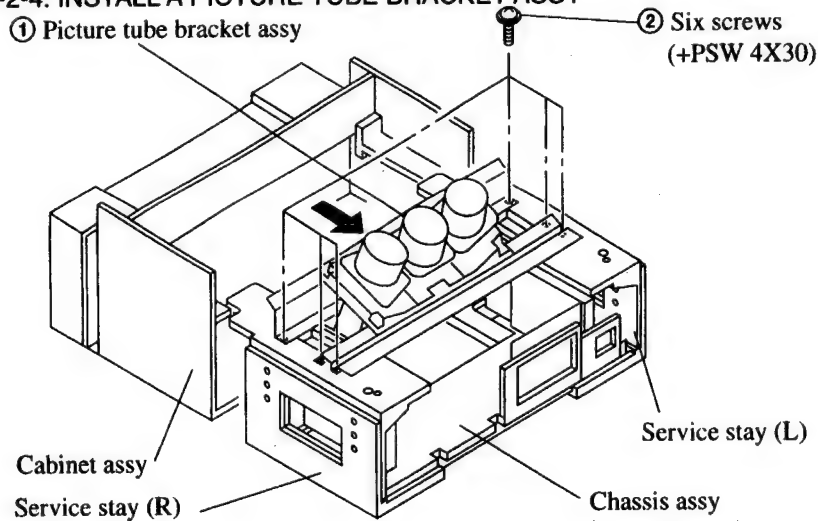
2-2-2. (2) D BLOCK ASSY REMOVAL (KP-E53MH11/E53MN11/E53SN11)



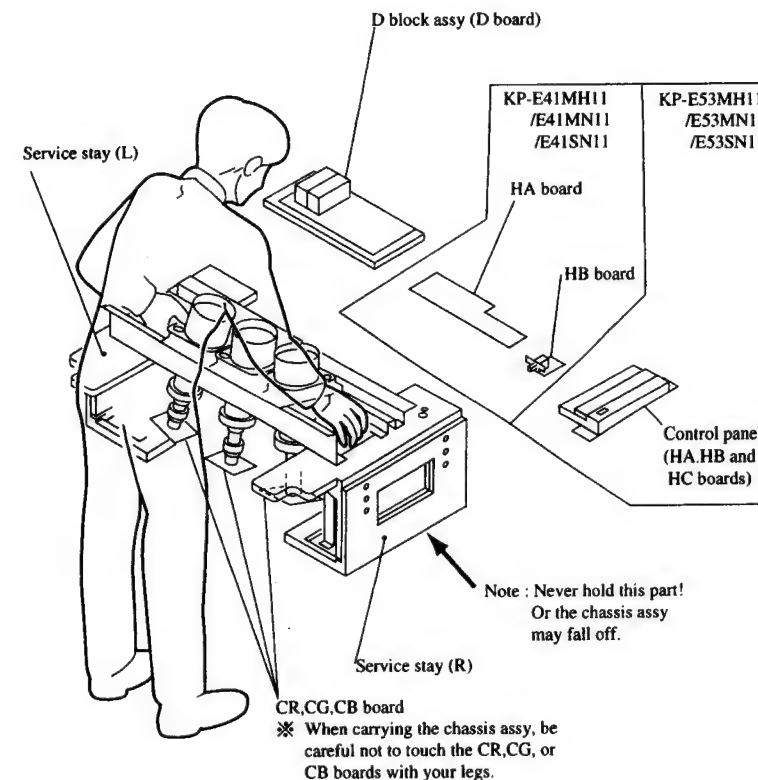
2-2-3. PICTURE TUBE BRACKET ASSY REMOVAL AND INSTALL A CHASSIS ASSY



2-2-4. INSTALL A PICTURE TUBE BRACKET ASSY

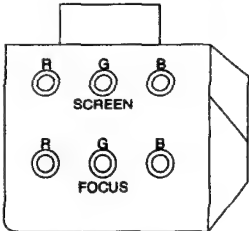
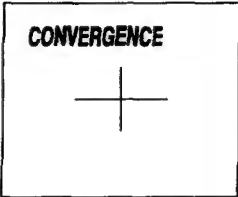
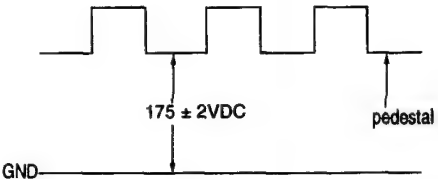


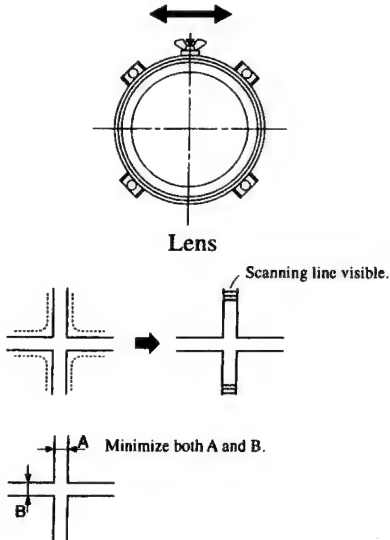
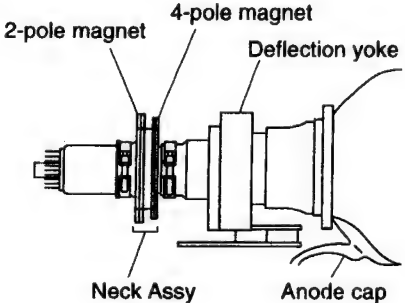
2-2-5. CARRY BACK SERVICE STAY ASSY



- ※ Even with 2 servicemen, be sure to put your hands in to the grooves on the top of service stays (L) and (R) to carry the chassis assy.
- ※ To hold the chassis assy, put your hands into the grooves on the top of service stays (L) and (R).

SECTION 3 SET-UP ADJUSTMENTS

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<p>SCREEN VOLTAGE ADJUSTMENT (ROUGH ALIGNMENT)</p> <ol style="list-style-type: none"> 1. Turn the red VR on the FOCUS block all the way to the left and then gradually turn it to the right until the point where you can see the retrace line. 2. Next gradually turn it to the left to the position where the retrace line disappears. <p>FOCUS LENS ADJUSTMENT</p> <ol style="list-style-type: none"> 1. Loose the lens screw. 2. Set in service mode. 3. Use VSP on the service mode menu to shown only the green color. 4. Press the Commander Menu button and select FEATURES and CONVERGENCE to display the test signal on the screen. 5. Rotate the green lens and align with the optimal focus point from the test signal. 6. Use RRH from the service mode menu to set to green and red. 7. Output the test signal and rotate the red lens to obtain the optimum focus at the point where the red and green spots overlap. 8. Use RBH from the service mode menu to set to red and blue. 9. Output the test signal and rotate the blue lens to obtain the optimum focus at the point where the blue and red spots overlap. 10. Tighten the lens screw. <p>SCREEN (G2) ADJUSTMENT</p> <ol style="list-style-type: none"> 1. Select VIDEO mode without signals. 2. Connect an oscilloscope to the TP701(KR), TP731(KG) and TP761(KB) of CR board, CG board and CB board. 3. Adjust R, G and B screen voltage to $175 \pm 2\text{VDC}$ with screen VR on the focusblock. 	Monoscope Pattern		<p>PICTURE minimum BRIGHTNESS 50% SCREEN (G2)</p>	 <p style="text-align: center;">FOCUS block</p>  

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<p>FOCUS VR ADJUSTMENT</p> <ol style="list-style-type: none"> 1. Set in service mode. 2. Use VSP on the service mode menu to shown only the green color. 3. Press the Commander Menu button (convergence) and output the test signal. 4. Rotate the green VR on the FOCUS block and align to obtain the optimal focus point. 5. Use RRH from the service mode menu to set to green and red. 6. Output the test signal and rotate the red VR to obtain the optimum focus at the point where the red and green spots overlap. 7. Use RBH from the service mode menu to set to red and blue. 8. Output the test signal and rotate the blue VR aligning to obtain the optimum focus at the point where the blue and green spots overlap. 				
<p>DEFLECTION YOKE TILT ADJUSTMENT</p> <ol style="list-style-type: none"> 1. Set in service mode. 2. Set to receive the monoscope signal. 3. Use VSP on the service mode menu to shown only the green color. 4. Loosen the deflection yoke setscrew and align the tilt of the Deflection Yoke so that the bars at the center of the monoscope pattern are horizontal. 5. After aligning the deflection yoke, fasten it securely to the funnel-shaped portion (neck) of the CRT. 6. The tilt of the deflection yoke for red is aligned with RRH on the service mode menu, and the tilt on the deflection yoke for green is aligned with RBH on the service menu, is aligned the same as was done for green. 	<p>Monoscope pattern</p>			

ELECTRICAL ADJUSTMENT BY REMOTE COMMANDER

Use of Remote Commander (RM-901) can be performed circuit adjustments about this model.

NOTE : Test Equipment Required.

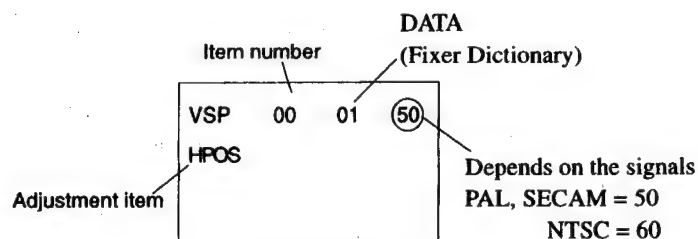
1. Pattern Generator
2. Frequency counter
3. Digital multimeter
4. Audio oscillator

1. METHOD OF SETTING THE SERVICE ADJUSTMENT MODE

SERVICE MODE PROCEDURE

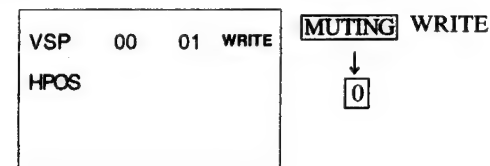
1. Standby mode. (Power off)
2. **DISPLAY** → **5** → **VOL(+)** → **POWER** on the Remote Commander.
(Press each button within a second.)

SERVICE ADJUSTMENT MODE IN



3. The CRT displays the item Being adjusted.
4. Press **1** or **4** on the Remote Commander to select the item.
5. Press **3** or **6** on the Remote Commander to change the data.
6. If you want to recover the latest values press **7** then **0** to read the memory.
7. Press **5** then **0** to write initial data into memory.
8. Press **MUTING** then **0** to write into memory.

SERVICE ADJUSTMENT MODE MEMORY

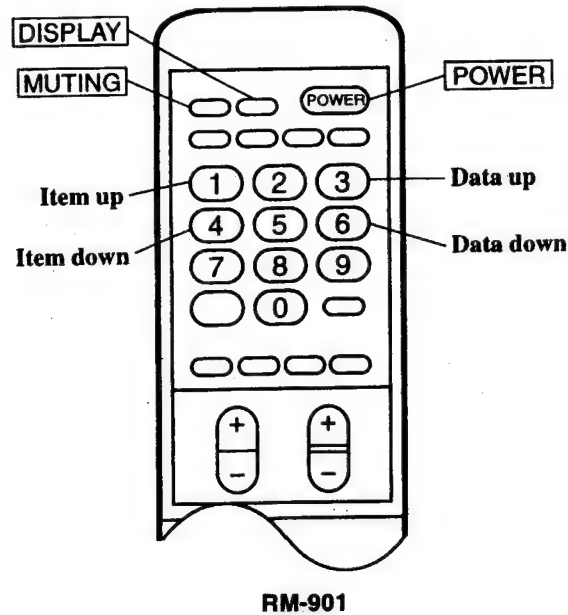


9. Press **8** then **0** on the Remote Commander to initialize.
(Be sure not to use usually)
10. Turn set off and on to exit.

2. MEMORY WRITE CONFIRMATION METHOD

1. After adjustment, pull out the plug from AC outlet, and next place, plug in AC outlet again.
2. Turn the power switch ON and set to Service Mode.
3. Call the adjusted items again, confirm they were adjusted.

3. ADJUST BUTTONS AND INDICATOR



4. SERVICE MODE LIST

VSP

	Item number	Adjustment item	Data range	Standard data	Initial data	Note	Device
VSP	00	HPOS	0 ~ 63	28	28	H-SHIFT	CXD2018Q
	01	VSEZ	0 ~ 63	02	15	V-SIZE	
	02	VPOS	0 ~ 63	35	35	V-SHIFT	
	03	VSCO	0 ~ 15	07	07	S-CORRECTION	
	04	VLIN	0 ~ 15	08	08	V-LINEARITY	
	05	HSIZ	0 ~ 63	20	28	H-SIZE	
	06	HIPN	0 ~ 63	25	36	PIN-AMP	
	07	HKEY	0 ~ 31	15	15	TILT	
	08	UPCP	0 ~ 15	07	07	UPPER CORNER PIN	
	09	LOCP	0 ~ 15	06	06	LOWER CORNER PIN	
	10	HBOW	0 ~ 15	09	09	V-BOW	
	11	HSKE	0 ~ 15	08	08	V-ANGLE	

DP

	Item number	Adjustment item	Data range	Standard data	Initial data	Note	Device
R GH	00	CENT	-127 ~ +128	07	00	GREEN. H CENTER	CXP85112B-613S
	01	SKEW	-127 ~ +128	00	00	GREEN. H SKEW	
	02	BOW	-127 ~ +128	-01	-01	GREEN. H BOW	
	03	4BOW	-127 ~ +128	00	00	GREEN. H 4th BOW	
	04	SIZE	-127 ~ +128	09	00	GREEN. H SIZE	
	05	LIN	-127 ~ +128	06	-20	GREEN. H LINEARITY	
	06	MSIZ	-127 ~ +128	16	16	GREEN. H MIDDLE SIZE	
	07	MLIN	-127 ~ +128	06	06	GREEN. H MIDDLE LINEARITY	
	08	KEY	-127 ~ +128	00	00	GREEN. H KEY	
	09	SSKW	-127 ~ +128	14	14	GREEN. H SUB SKEW	
	10	MPIN	-127 ~ +128	-04	47	GREEN. H MIDDLE PIN	
	11	PIN	-127 ~ +128	47	02	GREEN. H PIN	
	12	SBOW	-127 ~ +128	-16	-16	GREEN. H SUB BOW	
	13	MBOW	-127 ~ +128	04	04	GREEN. H MIDDLE BOW	
	14	4PIN	-127 ~ +128	-11	-03	GREEN. H 4th PIN	
	15	4SBOW	-127 ~ +128	00	00	GREEN. H 4th SUB BOW	
R GV	00	CENT	-127 ~ +128	00	00	GREEN. V CENTER	CXP85112B-613S
	01	SKEW	-127 ~ +128	00	00	GREEN. V SKEW	
	02	BOW	-127 ~ +128	16	16	GREEN. V BOW	
	03	SIZE	-127 ~ +128	-30	-06	GREEN. V SIZE	
	04	LIN	-127 ~ +128	22	22	GREEN. V LINEARITY	
	05	MSIZ	-127 ~ +128	-05	-05	GREEN. V MIDDLE SIZE	
	06	MKEY	-127 ~ +128	-05	-05	GREEN. V MIDDLE KEY	
	07	KEY	-127 ~ +128	-18	-18	GREEN. V KEY	
	08	SSKW	-127 ~ +128	01	01	GREEN. V SUB SKEW	
	09	MPIN	-127 ~ +128	-04	-04	GREEN. V MIDDLE PIN	
	10	PIN	-127 ~ +128	42	42	GREEN. V PIN	
	11	SBOW	-127 ~ +128	08	08	GREEN. V SUB BOW	
	12	WAVE	-127 ~ +128	-01	-01	GREEN. V WAVE	
	13	4PIN	-127 ~ +128	07	07	GREEN. V 4th PIN	
R RH	00	CENT	-127 ~ +128	-40	-04	RED. H CENTER	CXP85112B-613S
	01	SKEW	-127 ~ +128	00	00	RED. H SKEW	
	02	BOW	-127 ~ +128	06	06	RED. H BOW	
	03	4BOW	-127 ~ +128	-01	-01	RED. H 4th BOW	
	04	SIZE	-127 ~ +128	10	-02	RED. H SIZE	
	05	LIN	-127 ~ +128	31	16	RED. H LINEARITY	
	06	MSIZ	-127 ~ +128	12	12	RED. H MIDDLE SIZE	
	07	MLIN	-127 ~ +128	-09	-09	RED. H MIDDLE LINEARITY	
	08	KEY	-127 ~ +128	-08	-08	RED. H KEY	
	09	SSKW	-127 ~ +128	04	04	RED. H SUB SKEW	
	10	MPIN	-127 ~ +128	54	54	RED. H MIDDLE PIN	
	11	PIN	-127 ~ +128	-01	-01	RED. H PIN	

	Item number	Adjustment item	Data range	Standard data	Initial data	Note	Device
R RH	12	SBOW	-127 ~ +128	07	07	RED. H SUB BOW	
	13	MBOW	-127 ~ +128	21	21	RED. H MID BOW	
	14	4PIN	-127 ~ +128	-10	00	RED. H 4th PIN	
	15	4SBOW	-127 ~ +128	-13	00	RED. H 4th SUB BOW	
R RV	00	CENT	-127 ~ +128	00	-43	RED. V CENTER	CXP85112B-613S
	01	SKEW	-127 ~ +128	00	00	RED. V SKEW	
	02	BOW	-127 ~ +128	17	17	RED. V BOW	
	03	SIZE	-127 ~ +128	70	00	RED. V SIZE	
	04	LIN	-127 ~ +128	24	24	RED. V LINEARITY	
	05	MSIZ	-127 ~ +128	-05	-05	RED. V MIDDLE SIZE	
	06	MKEY	-127 ~ +128	05	05	RED. V MIDDLE KEY	
	07	KEY	-127 ~ +128	05	05	RED. V KEY	
	08	SSKW	-127 ~ +128	01	01	RED. V SUB SKEW	
	09	MPIN	-127 ~ +128	-07	-07	RED. V MIDDLE PIN	
	10	PIN	-127 ~ +128	09	09	RED. V PIN	
	11	SBOW	-127 ~ +128	10	10	RED. V SUB BOW	
	12	WAVE	-127 ~ +128	29	29	RED. V WAVE	
	13	4PIN	-127 ~ +128	10	10	RED. V 4th PIN	
R BH	00	BSEL	0/1	01	00	RESISTRATION μ CON BSEL	CXP85112B-613S
	01	CENT	-127 ~ +128	-25	-08	BLUE. H CENTER	
	02	SKEW	-127 ~ +128	00	00	BLUE. H SKEW	
	03	BOW	-127 ~ +128	-01	-01	BLUE. H BOW	
	04	4BOW	-127 ~ +128	-03	-03	BLUE. H 4th BOW	
	05	SIZE	-127 ~ +128	-21	-21	BLUE. H SIZE	
	06	LIN	-127 ~ +128	-64	-64	BLUE. H LINEARITY	
	07	MSIZ	-127 ~ +128	22	22	BLUE. H MID SIZE	
	08	MLIN	-127 ~ +128	55	55	BLUE. H MID LINEARITY	
	09	KEY	-127 ~ +128	-08	-08	BLUE. H KEYSTONE	
	10	SSKW	-127 ~ +128	24	24	BLUE. H SUB SKEW	
	11	MPIN	-127 ~ +128	34	34	BLUE. H MID PIN	
	12	PIN	-127 ~ +128	10	10	BLUE. H PIN	
	13	SBOW	-127 ~ +128	-34	-34	BLUE. H SUB BOW	
	14	MBOW	-127 ~ +128	-12	-12	BLUE. H MID BOW	
	15	4PIN	-127 ~ +128	-10	-01	BLUE. H 4th PIN	
	16	4SBOW	-127 ~ +128	05	05	BLUE. H 4th SUB BOW	
R BV	00	CENT	-127 ~ +128	00	-17	BLUE. V CENTER	CXP85112B-613S
	01	SKEW	-127 ~ +128	00	00	BLUE. V SKEW	
	02	BOW	-127 ~ +128	13	13	BLUE. V BOW	
	03	SIZE	-127 ~ +128	45	-38	BLUE. V SIZE	
	04	LIN	-127 ~ +128	20	20	BLUE. V LINEARITY	
	05	MSIZ	-127 ~ +128	-07	-07	BLUE. V MIDDLE SIZE	
	06	MKEY	-127 ~ +128	-21	-21	BLUE. V MIDDLE KEY	

	Item number	Adjustment item	Data range	Standard data	Initial data	Note	Device
R BV	07	KEY	-127 ~ +128	67	67	BLUE. V KEY	CXP85112B-613S
	08	SSKW	-127 ~ +128	04	04	BLUE. V SUB SKEW	
	09	MPIN	-127 ~ +128	-07	-07	BLUE. V MIDDLE PIN	
	10	PIN	-127 ~ +128	-29	-29	BLUE. V PIN	
	11	SBOW	-127 ~ +128	10	10	BLUE. V SUB BOW	
	12	WAVE	-127 ~ +128	-40	-40	BLUE. V WAVE	
	13	4PIN	-127 ~ +128	15	15	BLUE. V 4th PIN	

MCD

	Item number	Adjustment item	Data range	Standard data	Initial data	Note	Device
MCD	00	MHUE	0 ~ 31	17	13	SUB HUE OF MAIN PICTURE	TDA9141

SCD

	Item number	Adjustment item	Data range	Standard data	Initial data	Note	Device
SCD	01	YDLY	0 ~ 15	01	01	Y DELAY	TDA9143

RGB

	Item number	Adjustment item	Data range	Standard data	Initial data	Note	Device
RGB	00	SHUE	0 ~ 31	28	16	SUB HUE OF SUB PICTURE	TDA4780
	01	SCOL	0 ~ 15	10	11	SUB COLOR	
	02	SBRT	0 ~ 63	21	10	SUB BRIGHTNESS	
	03	RAMP	0 ~ 63	31	31	RED GAIN	
	04	GAMP	0 ~ 63	31	31	GREEN GAIN	
	05	BAMP	0 ~ 63	31	48	BLUE GAIN	
	06	RCUT	0 ~ 63	31	31	RED LEVEL REFERENCE	
	07	GCUT	0 ~ 63	45	31	GREEN LEVEL REFERENCE	
	08	BCUT	0 ~ 63	31	48	BLUE LEVEL REFERENCE	
	09	PDL	0 ~ 63	30	20	PEAK DRIVE LIMIT	
	10	GNMA	0 ~ 63	40	40	GAMMA	
	11	ADBL	0/1	00	00	ADAPTIVE BLACK	
	12	RELC	0/1	01	01	RELATIVE TO CUT-OFF	
	13	TCPL	0/1	01	01	TIME CONSTANT PEAK DRIVE LIMITER	

PIP

	Item number	Adjustment item	Data range	Standard data	Initial data	Note	Device
PIP	00	AXIS	0 / 1	01	01	RGB AXIS	SDA9188-3X
	01	RDV	0 ~ 15	08	08	V READ DELAY	
	02	RDH	0 ~ 63	16	16	H READ DELAY	
	03	FRY	0 ~ 15	04	04	BRIGHTNESS OF THE BORDER FRAME	
	04	9V50	0 ~ 7	03	03	MULTI P IN P V 50Hz	
	05	9H50	0 ~ 7	03	03	MULTI P IN P H 50Hz	
	06	9V60	0 ~ 7	03	03	MULTI P IN P V 60Hz	
	07	9H60	0 ~ 7	03	03	MULTI P IN P H 60Hz	

TXT

	Item number	Adjustment item	Data range	Standard data	Initial data	Note	Device
TXT	00	BOXP	0 ~ 15	00	00		TPU3040
	01	TXH	0 ~ 255	05	05	H START POSITION	
	02	TXV	0 ~ 63	44	44	V START POSITION	
	03	VSP	0 ~ 255	59	59	V STOP POSITION	
	04	BSP	0 ~ 255	61	61	BLANKING STOP	
	05	BST	0 ~ 255	53	53	BLANKING START	
	06	QSF	0 ~ 31	01	01	ACQUISITION SOFT SLICER	
	07	A7F	0 ~ 255	10	10	VALUE OF ADDRESS 007FH	
	08	QDT	0 ~ 63	13	13	ACQUISITION DATA SLICER	
	09	CST	0 ~ 255	00	00	CLAMPING START	
	10	CSP	0 ~ 255	80	80	CLAMPING STOP	
	11	LMT	0 / 1	00	00	LIMIT SLICER ADAPTION SWITCH	
	12	GMX	0 ~ 255	31	31	GAIN MAX	
	13	FMX	0 ~ 255	32	31	FILTER MAX	

AP

	Item number	Adjustment item	Data range	Standard data	Initial data	Note	Device
AP	00	TVER	0 ~ 3	03	03	TPU VERSION (TC20=3)	MSP3410
	01	FAW	0 ~ 255	10	10	NICAM FAW THRESHOLD	
	02	CTM	0 ~ 255	08	08	NICAM ERROR BIT THRESHOLD (MONO->NICAM)	
	03	CTN	0 ~ 255	80	80	NICAM ERROR BIT THRESHOLD (NICAM->MONO)	
	04	WGO	0 ~ 255	10	10	WEST GERMAN STEREO LOW THRESHOLD	
	05	WGS	0 ~ 255	21	21	WEST GERMAN STEREO HIGH THRESHOLD	
	06	WGT	0 ~ 255	80	80	WEST GERMAN STEREO LOW 2 THRESHOLD	
	07	WGB	0 ~ 255	234	234	WEST GERMAN STEREO HIGH 2 THRESH	
	08	ACG	0 / 1	01	01	AGC AUTO / CONSTANT SWITCH	
	09	CDB	0 ~ 63	40	40	AGC GAIN VALUE AT CONSTANT MODE	
	10	FMP	0 ~ 127	34	34	FM MONO PRESCALE	
	11	WGP	0 ~ 127	60	60	WEST GERMAN STEREO PRESCALE	
	12	INIP	0 ~ 127	127	127	1 NICAM PRESCALE	
	13	CRM	0 / 1	00	00	CARRIER MUTE FUNCTION	
	14	ACO	0 / 1	01	01	AUDIO CLOCK OUT OFF/ON	





CPU

	Item number	Adjustment item	Data range	Standard data	Initial data	Note	Device
CPU	00	WAC	0 ~ 15	01	01	WEST GERMAN STEREO JUDGE CONSTANT	CXP5400
	01	OSH	0 ~ 63	11	13	OSD H POSITION	
	02	ODL	0 ~ 256	15	15	POWER ON DELAY	
	03	WIDE	0 / 1	00	00	RELAY FOR WIDE MODEL	
	04	TWIN	0 / 1	00	00	0 : 4 : 3 1 : 16 : 9	
						0 : Sub V FIELD PROCESSING	
	05	DSPC	0 / 1	01	01	1 : Sub V FRAM PROCESSING	
						0 : ENABLE RECEIVE OF CHANNEL IDENTICAL TO TWIN PICTURE	
	06	SFTE	0 / 1	*00	01	1 : DISABLE RECEIVE OF CHANNEL IDENTICAL TO TWIN PICTURE	
						SIFT ENABLE	
						SIFT CHECK FACTORY	
	07	SFTF	0 / 1	00	00		
	08	3 BCN	0 ~ 255	10	10		

* After registration adjustment is completed, set the initial value to "01".

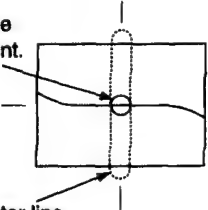




01 : As a countermeasure against CRT image burnout, picture slightly shifts left and right (every 2 hours).

00 : No shift of picture (adjustment mode)

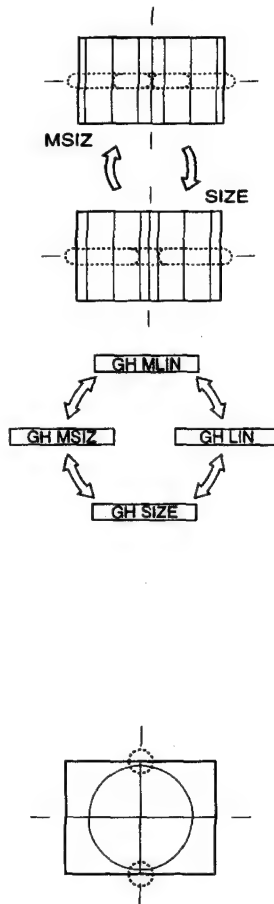
ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<p>CONVERGENCE ADJUSTMENT</p> <p>● When replacing the deflection yoke, always perform "DEFLECTION YOKE TILT ADJUSTMENT" before adjusting the convergence.</p> <p>Adjustment procedure</p> <pre> graph TD A[VSP MAIN] --> B[R GH (SUB), R GV (SUB)] B --> A B --> C[R RH (SUB), R RV (SUB)] C --> D[R BH (SUB), R BV (SUB)] </pre> <p>• GREEN REGISTRATION ADJUSTMENT</p> <ul style="list-style-type: none"> • V-SHIFT adjustment • V-LINEARITY adjustment • V-SIZE, V-CORRECTION adjustment While tracking, adjust so that the lattice intervals for VSIZ and VSCO are equal. 	<p>Monoscope pattern or Crosshatch pattern</p>		<p><VSP MENU> VSP VPOS</p> <p>VSP VLIN</p> <p>VSP VSIZ VSP VSCO</p>	<p>VPOS</p>  <p>VLIN</p>  <p>VSIZ</p>  <p>VSCO</p> 

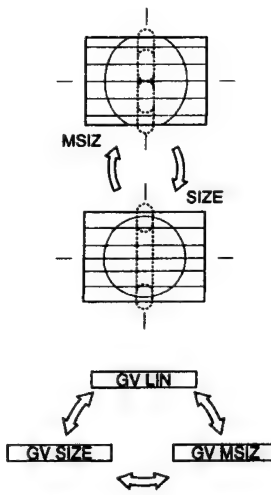
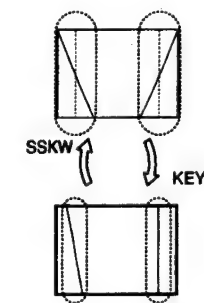
ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<ul style="list-style-type: none"> • H-SHIFT adjustment 			VSP HPOS	<p>HPOS</p>
<ul style="list-style-type: none"> • H-SIZE adjustment Finely adjust with SUB MSIZE. 			VSP HSIZ	<p>HSIZ</p>
<ul style="list-style-type: none"> • PIN-AMP adjustment Finely adjust with SUB MPIN. 			VSP HPIN	<p>HPIN</p>
<ul style="list-style-type: none"> • UPPER/LOWER-CORNER PIN adjustment Correct the screen top and bottom section line bow. However, if this adjustment is overdone, distortion may occur with the PIN-AMP adjustment that can not be adjusted away. 			VSP UPCP VSP LOCP	<p>UPCP</p> <p>LOCP</p>
<ul style="list-style-type: none"> • V-ANGLE, V-BOW adjustment Correct the tilt and bow of the vertical line at the center of the screen. 			VSP HSKE VSP HBOW	<p>HSKE</p> <p>HBOW</p>
<ul style="list-style-type: none"> • TILT adjustment Adjust to eliminate the tilt of one of the two vertical lines at both ends of the screen. 			VSP HKEY	<p>HKEY</p>

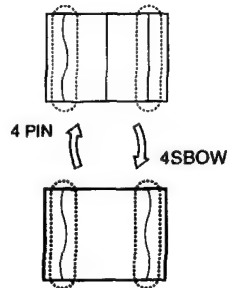
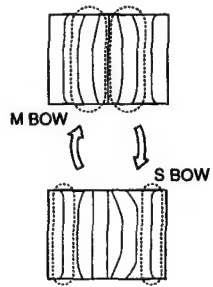
ADJUSTMENT ITEM AND PROCEDURE		EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER		
CONVERGENCE SUB ADJUSTMENT							
Adjustment O : Yes - : No							
Display	Adjustment item	Adjustment type					
		RGH	RGV	RRH	RRV	RBH	RBV
BSEL	COL SELECT	-	-	-	-	O	-
CENT	CENT	O	O	O	O	O	O
SKEW	SKEW	O	O	O	O	O	O
BOW	BOW	O	O	O	O	O	O
4BOW	4TH BOW	O	-	O	-	O	-
SIZE	SIZE	O	O	O	O	O	O
LIN	LIN	O	O	O	O	O	O
MSIZ	MID SIZE	O	O	O	O	O	O
MLIN	MID LIN	O	O	O	-	O	-
MKEY	MID KEY	-	O	-	O	-	O
KEY	KEY	O	O	O	O	O	O
SSKW	SUB SKEW	O	O	O	O	O	O
MPIN	MID PIN	O	O	O	O	O	O
PIN	PIN	O	O	O	O	O	O
SBOW	SUB BOW	O	O	O	O	O	O
WAVE	WAVE	-	O	-	O	-	O
MBOW	MID BOW	O	-	O	-	O	-
4PIN	4TH PIN	O	O	O	O	O	O
4SBOW	4TH SUB BOW	O	-	O	-	O	-

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<p>• GREEN SUB ADJUSTMENT</p> <p>SCREEN CENTER SECTION GREEN VERTICAL LINE ADJUSTMENT</p> <p>1. Finely adjust with RGH CENT, RGH BOW, RGH SKEW. Adjust watching out for the RGH CENT screen center section.</p>			<p><RGH MENU> RGH CENT RGH BOW RGH SKEW</p>	<p>Watch out only for the GH CENT center point.</p>  <p>Watch the vertical center line.</p> <p>RGH CENT</p>  <p>RGH BOW</p>  <p>RGH SKEW</p>  <p>RGH 4BOW</p> 
<p>2. RGH 4TH BOW adjustment Correct the corner distortion that could not be adjusted away with the RGH BOW adjustment.</p>			RGH 4BOW	





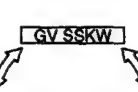
ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<p>SCREEN CENTER SECTION GREEN HORIZONTAL LINE ADJUSTMENT</p> <p>1. Finely adjust the center position of the vertical line at the center of the screen with RGV CENT.</p> <p>2. Correct the tilt and bow of the horizontal line at the center of the screen with RGV SKEW and RGV BOW.</p> <p>GREEN SIZE AND LINEARITY ADJUSTMENT</p> <p>1. Balance the sizes at both sides of the center section of the screen with RGH MLIN.</p> <p>2. Balance the sizes on both end sections of the screen with RGH LIN.</p> <p>3. While tracking, adjust with RGH MLIN and RGH LIN so that the sizes of the horizontal line at the center of the screen are symmetrical left and right.</p>			<p><RGV MENU></p> <p>RGV CENT</p> <p>Watch the horizontal center line.</p> <p>Watch out only for the RGV CENT center point.</p> <p>RGV CENT</p> <p>RGV SKEW</p> <p>RGV BOW</p> <p><RGH MENU></p> <p>RGH MLIN</p> <p>RGH LIN</p>	


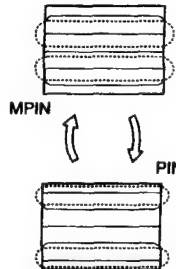
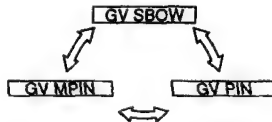
ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<p>GREEN HORIZONTAL SIZE ADJUSTMENT</p> <ol style="list-style-type: none"> 1. Adjust with RGH MSIZE so that the sizes of both edges and of both sides of the center section of the screen are equal. 2. Adjust with RGH SIZE so that the horizontal sizes of both edges and of both sides of the center section of the screen are equal. 3. While tracking, adjust with RGH MSIZ and RGH SIZE so that the lattice intervals for the horizontal line section of the center section of the screen are equal and so that the horizontal size is the prescribed value. 4. If M LIN is changed when the RGH MSIZ and RGH SIZE adjustment is complete, adjust again while tracking. <p>● With just the H SIZE adjustment in MAIN, if there is no need to adjust RGH SIZE in SUB this can save power.</p> <p>GREEN VERTICAL LINEARITY ADJUSTMENT</p> <ol style="list-style-type: none"> 1. Adjust RGV LIN so that the vertical lines at the top and bottom of the screen are symmetrical. 			<p><RGH MENU> RGH MSIZ RGH SIZE</p> <p><RGV MENU> RGV LIN</p>	 <p>The illustration for Green Horizontal Size Adjustment consists of three parts. The top part shows a rectangular screen divided into a grid of vertical lines. A horizontal dashed line passes through the center. Arrows labeled 'MSIZ' and 'SIZE' point to the left and right edges of the grid, indicating adjustment. The middle part shows the same grid, but with the vertical lines slightly curved, indicating a change in the horizontal size. The bottom part shows a circular diagram with four labels: 'GH MSIZ' at the top, 'GH SIZE' at the bottom, 'GH LIN' on the right, and 'GH MSIZ' on the left. Arrows indicate a clockwise cycle between these labels. The illustration for Green Vertical Linearity Adjustment shows a rectangular screen with a circle inscribed within it. A vertical dashed line passes through the center of the circle. Arrows at the top and bottom of the circle indicate adjustment for vertical linearity.</p>

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<p>GREEN VERTICAL SIZE ADJUSTMENT</p> <ol style="list-style-type: none"> 1. Adjust with RGV MSIZE so that the sizes for the top and bottom sections of the screen and for both sides of the center section of the screen are equal. 2. Set the vertical size to the prescribed value with RGV SIZE. 3. Adjust RGV MSIZ and RGV SIZE watching the vertical line at the center section of the screen. 4. While tracking, adjust with RGV MSIZ and RGV SIZE so that the lattice intervals for the vertical line section of the center section of the screen are equal and so that the vertical size is the regulation value. 5. If RGV LIN is out of place when the RGV MSIZ and RGV SIZE adjustment is complete, adjust again while tracking. <p>●If there is no need to adjust RGV SIZE in SUB with just the V SIZE adjustment in MAIN, this can save power.</p>			<p><RGV MENU> RGV MSIZ</p> <p>RGV SIZE</p>	
<p>GREEN HORIZONTAL TRAPEZOIDAL DISTORTION ADJUSTMENT</p> <ol style="list-style-type: none"> 1. Adjust with RGH SSKW so that the tilt of the vertical lines at both edges of the screen is symmetrical left and right. 2. Adjust with RGH KEY so that there is no tilt in the vertical lines at both edges of the screen. 3. If there is a tilt on either the left or right after the RGH KEY adjustment, adjust while tracking. 			<p><RGV MENU> RGH SSKW</p> <p>RGH KEY</p>	

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<p>GREEN HORIZONTAL QUATERNARY ADJUSTMENT</p> <ol style="list-style-type: none"> 1. Correct the quaternary distortion with RGH 4PIN. 2. While balancing, correct the quaternary distortion of both end sections of the screen with RGH 4SBOW. 3. While tracking, adjust with RGH 4PIN and RGH 4SBOW. 			<p><RGH MENU></p> <p>RGH 4PIN</p> <p>RGH 4SBOW</p>	
<p>GREEN HORIZONTAL ASYMMETRICAL PIN DISTORTION ADJUSTMENT</p> <ol style="list-style-type: none"> 1. Adjust with RGH MBOW so that the pin asymmetry at both sides of the center section of screen is symmetrical. 2. Adjust with RGH SBOW so that the bow at both end sections of the screen is symmetrical left and right. 3. While tracking, adjust with RGH MBOW and RGH SBOW so that the bow of vertical lines on the entire screen is symmetrical left and right. 			<p><RGH MENU></p> <p>RGH MBOW</p> <p>RGH SBOW</p>	

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
GREEN HORIZONTAL SYMMETRICAL PIN DISTORTION ADJUSTMENT <ol style="list-style-type: none"> 1. Adjust the pin distortion at both sides of the center section of the screen with RGH MPIN. 2. Adjust the pin distortion at both end sections of the screen with RGH PIN. 3. While tracking, adjust with RGH MPIN and RGH PIN so that the PIN of vertical lines on the entire screen have no bowing. 4. If there is asymmetrical pin distortion after the RGH MPIN and RGH PIN adjustments, adjust with RGH MBOW and RGH SBOW while tracking. <p>● With just the PIN AMP adjustment in MAIN, if there is no need to adjust RGV PIN in SUB, this can save power.</p>			<p><RGH MENU></p> <p>RGH MPIN</p> <p>RGH PIN</p> <p>RGH MBOW</p> <p>RGH SBOW</p>	
GREEN VERTICAL WAVE (TERTIARY DISTORTION) ADJUSTMENT <ol style="list-style-type: none"> 1. Take the screen top and bottom horizontal lines with RGV WAVE and find the secondary and quaternary waveform. 2. There is KEY distortion after the RGV WAVE adjustment, so adjust with GV WAVE and RGV KEY while tracking. 			<p><RGV MENU></p> <p>RGV WAVE</p> <p>RGV KEY</p>	

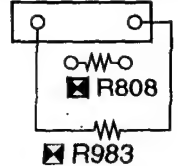


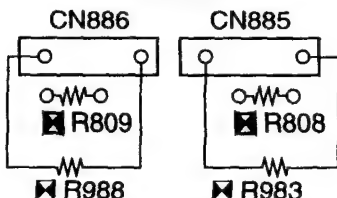
ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
GREEN VERTICAL QUATERNARY DISTORTION ADJUSTMENT 1. Correct the quaternary distortion of the horizontal lines at the top and bottom sections of the screen with RGV 4PIN.			<RGV MENU> RGV 4PIN	RGV 4PIN 
1) Since there is no 4SBO for vertical correction, there will be a slight imbalance, but adjust to eliminate the distortion from the horizontal line at either the top or the bottom of the screen. 2) In many cases, the horizontal lines at the top and bottom sections of the screen are not straight lines after the adjustment. As long as the secondary distortion is mild enough that it can be corrected with the PIN adjustment, this is OK.				
GREEN VERTICAL TRAPEZOIDAL DISTORTION ADJUSTMENT 1. Adjust with RGV SSKW so that the tilt of the horizontal lines at the top and bottom sections of the screen is symmetrical about the center position horizontal line. 2. Adjust with RGV MKEY so that there is no tilt for the line sections at both sides of the horizontal lines at the center section of the stream. 3. Adjust with RGV KEY so that there is no tilt for the horizontal lines at the top and bottom sections of the screen. 4. While tracking, adjust with RGV MKEY and RGV KEY so that there is no tilt for the horizontal lines on the entire screen.			<RGV MENU> RGV SSKW RGV MKEY RGV KEY	RGV SSKW   MKEY  KEY  GV SSKW GV KEY GV MKEY
5. If the tilt is unbalanced after the RGV MKEY and RGV KEY adjustment, adjust again with RGV SSKW.			RGV SSKW	

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
GREEN VERTICAL ASYMMETRICAL PIN DISTORTION (SECONDARY DISTORTION) ADJUSTMENT 1. Correct the asymmetrical pin distortion at the top and bottom sections of the screen with RGV SBOW.			<RGV MENU> RGV SBOW	RGV SBOW 
GREEN VERTICAL ASYMMETRICAL PIN DISTORTION ADJUSTMENT 1. Adjust the pin distortion for both side sections and the center of the screen with RGV MPIN. 2. Adjust with RGV PIN so that the horizontal lines at the top and bottom sections of the screen are straight lines. 3. Adjust with RGV MPIN and RGV PIN so that there is no curve in the horizontal lines on the entire screen.			<RGV MENU> RGV MPIN RGV PIN	
4. After the adjustments in Items 1-3, adjust the tracking with RGV SBOW, RGV MPIN, and RGV PIN.			RGV SBOW	

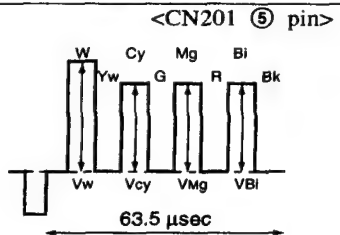
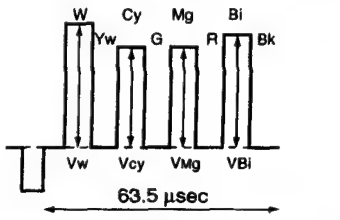
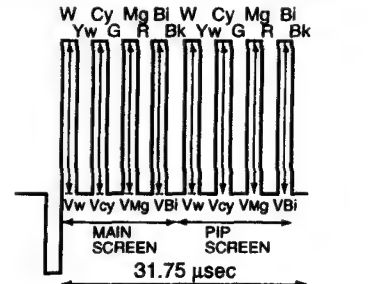
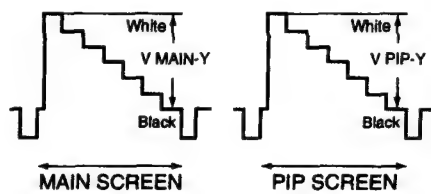
ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<p>GREEN AND RED REGISTRATION ADJUSTMENT (RRH, RRV)</p> <ol style="list-style-type: none"> 1. Receive a PAL cross-hatch signal. 2. Adjust so that the red lines lay on the green lines. Adjust with the same procedure as the GREEN SUB adjustment. <p>Notes: 1. The main correction is not carried out during red registration adjustment. 2. Beware. The green adjustment items can be changed by mistake. 3. Unlike for green, adjust within the range -127 ~ +128.</p> <p>GREEN AND BLUE REGISTRATION ADJUSTMENT (RBH, RBV)</p> <ol style="list-style-type: none"> 1. Receive a PAL cross-hatch signal. 2. Adjust so that the blue and green lines are on top of each other. <p>Notes : 1. The main correction is not carried out during RED registration adjustment. 2. Beware. The GREEN and RED adjustment items can be changed by mistake.</p>	<p>PAL Cross-hatch pattern</p> <p>PAL Cross-hatch pattern</p>			

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ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<p>4. Check that the Static Voltmeter reading is 31.0 ± 0.5 kVDC.</p> <p>5. If the Static Voltmeter reading is 30.4 kVDC or lower, remove resistor R808 and mount 5.6 k 1/4W RN at R983.</p> <p>6. If the Static Voltmeter reading is 31.5 kVDC or higher, remove resistor R808 and mount 8.2 k 1/4W RN at R983.</p> <p>7. If the Static Voltmeter reading is 32.0 kVDC or higher, remove resistor R808 and mount 10.0 k 1/4W RN at R983.</p> <p>8. If any of Items 5, 6 or 7 has been implemented, check Item 4 again.</p>			<p>R983</p> <p>R983</p> <p>R983</p>	<p>31.0 \pm 0.5 kVDC 30.4 kVDC or lower 5.6 k 1/4W 31.5 kVDC or higher 8.2 k 1/4W 32.0 kVDC or higher 10.0 k 1/4W</p> <p>CN885 (E board)</p> 
<p>HV HOLD DOWN AND HV REGULATOR SIMPLE ADJUSTMENT</p> <p>It is normally desirable that the HV hold down and HV regulation checks use a Static-voltmeter. However, sometime one is not available, for example in the field, below is a simple adjustment method.</p> <p>When replacing parts with the  mark, replace both the resistors with the  mark R808 (R988) and R809 (R983) with resistors one rank lower in the E-12 series. Do not replace just one of these resistors. Always replace both with resistors one rank lower.</p>			<p>R808 (R988) R809 (R983)</p>	<p>E board</p> 

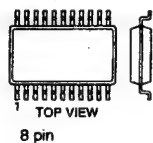
SECTION 5 ELECTRICAL ADJUSTMENTS

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
B BOARD ADJUSTMENT				
SUB COLOR (SCOL) ADJUSTMENT				
<ol style="list-style-type: none"> 1. Input the PAL Color Bar signal and adjust the picture control. 2. Set to service mode. 3. Connect an oscilloscope between ⑤ pin of CN201 and ground. 4. Adjust SCOL so that $V_{cy} = V_{Mg} = V_{Bi}$ in the waveform levels. 5. Write the data to memory. 	PAL Color Bar pattern Oscilloscope	CN201 ⑤ pin (B(2/3) Board)	PICTURE 80% RGB SCOL : $V_{cy} = V_{Mg} = V_{Bi}$	 <p style="text-align: center;"><CN201 ⑤ pin></p>
SUB HUE (MHUE,SHUE) ADJUSTMENT				
<ol style="list-style-type: none"> 1. Input the NTSC Color Bar signal. 2. Set to service mode. 3. Connect an oscilloscope between ⑤ pin of CN201 and ground. 4. Adjust MHUE so that $V_{cy} = V_{Mg}$ in the waveform levels. 5. Write the data to memory. 	NTSC Color Bar pattern Oscilloscope	CN201 ⑤ pin (B(2/3) Board)	MCD MHUE : $V_{cy} = V_{Mg}$	 <p style="text-align: center;"><CN201 ⑤ pin></p>
(PIP MODE) <ol style="list-style-type: none"> 1. Input the NTSC Color Bar signal. 2. Select PIP on screen mode and put the set into service mode. 3. Connect an oscilloscope between ⑤ pin of CN201 and ground. 4. Adjust SHUE so that $V_{cy} = V_{Mg}$ in the waveform levels. 5. Write the data to memory. 	NTSC Color Bar pattern Oscilloscope	CN201 ⑤ pin (B(2/3) Board)	SCD SHUE : $V_{cy} = V_{Mg}$	 <p style="text-align: center;">(PIP MODE) < CN201 ⑤ pin ></p>
SUB CONTRAST ADJUSTMENT				
(PIP MODE) <ol style="list-style-type: none"> 1. Input the PAL Color Bar signal. 2. Select PIP on screen mode and put the set into service mode. 3. Connect an oscilloscope Q14 emitter on the B(1/3) board and ground. 4. Adjust SCON so that $V_{MAIN-Y} = V_{PIP-Y}$ in the waveform levels. 5. Write the data to memory. 	PAL Color Bar pattern Oscilloscope	Q14 emitter (B(1/3) Board)	PIP SCON: $V_{MAIN-Y} = V_{PIP-Y}$	 <p style="text-align: center;">(PIP MODE) < B(1/3) board - Q14 emitter ></p>

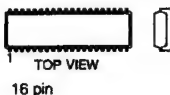
ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
SUB WHITE BALANCE ADJUSTMENT (PIP MODE) 1. Input Gray Scale signal 20 IRE. 2. Select PIP in screen mode and put the set into service mode. 3. Connect an oscilloscope Q15 emitter on the B(1/3) board and ground. 4. Adjust RV1 so that $V_{main} = V_{pip}$ in the waveform levels. 5. Connect an oscilloscope Q16 emitter on the B(1/3) board and ground. 6. Adjust RV2 so that $V_{main} = V_{pip}$ in the waveform levels.	Oscilloscope	[B(1/3) Board] Q15 emitter (R-Y) Q16 emitter (B-Y) Q35 emitter (PIP-FS)	[B(1/3) Board] RV1 (R-Y) RV2 (B-Y)	< Q15 emitter, Q16 emitter >
P IN P POSITION ADJUSTMENT 1. Upon receiving the Monoscope signal. 2. Set service mode and then press the PIP command twice. The P in P positon will then move periodically to four points. Adjust "RDV" and "RDH" on the new screen so that the four points are distributed equally at ; up, down, left and right. 3. Write the data to memory.	Monoscope pattern		< PIP MENU > RDV RDH	
TEXT POSITION ADJUSTMENT 1. Receive the RF signal with TEXT. 2. Set to service mode. 3. Set the TEXT in MIX mode and adjust the screen positon with "TXH" and "TXV". 4. Write the data to memory.			< TXT MENU > TXH (H position) TXV (V position)	
OSD POSITION ADJUSTMENT 1. Receive the PAL Color Bar signal. 2. Set to service mode. 3. Adjust "OSH" so that the center line of the signal and the center of the crosshairs of the OSD display match are aligned with each other. 4. Write the data to memory.	PAL Color Bar pattern		< CPU MENU > OSH	

6-5. SEMICONDUCTORS

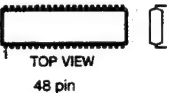
LM358D
NJM2234M
NJM2235M
NJM2240M
TDA2822D



MC74HC163AF
MC74HC4053F
MC74HC4538F
IR3M02A
TDA4665T-T



CXA1855S



CXD2018Q



CXD2024AQ



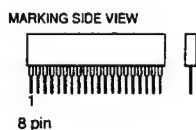
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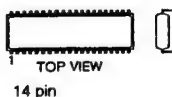
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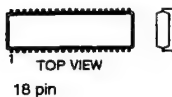
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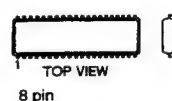
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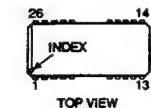
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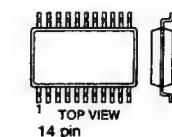
LM393P
M5218P
ST24016CM1-TR/A
 μ PC393C



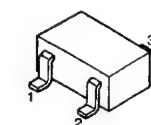
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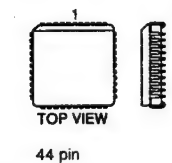
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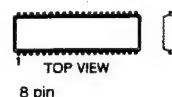
MN1382S



MSP3410
TPU3040



NJM2058D



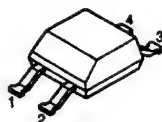
L7805CP
MC7805CT
PQ09RF2
TA7805S
TA7812S



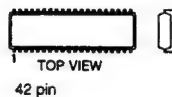
LM7912CT
MC7905CT
NJM7912FA



PC123F2



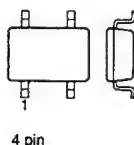
PM0002B



PQ05RF1



PQ12RF1



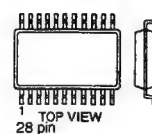
SBX1780-51



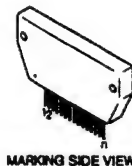
SE-135N



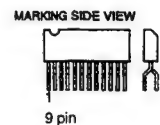
SDA9187-2XGEG
SDA9188-3XGEG



STK392-010



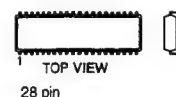
TDA6101Q/N3



STV9379



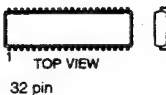
TDA4780/V3



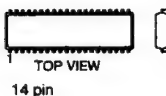
TDA7265



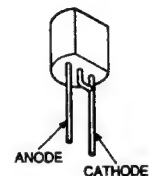
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TDA9160A



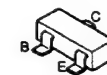
μ PC339C



μ PC574J



DTA114EKA-T146
DTA144EKA-T146
DTC144EKA-T146
2SA1037K-T-146-QR
2SA1162G
2SB709A-QRS-TX
2SC1623-L5L6
2SC2412K-QR
2SC2712-YG
2SD601A-Q



DTA144ESA
DTC124ESA



IRFI640LF
IRFI744G-LF
2SA1837
2SC4793



2SA1013-O
2SA1208



2SA1175-HFE
2SA1309A-QRS
2SC2785-HFE
2SC3311A-QRSTA



2SA1221-L
2SA1221-T-M
2SB733-34
2SB734-B4
2SB734-T-4
2SD774-34



2SB649A
2SC2668-LK



2SC2878-AB



2SC4632LS-CB7
2SD1887-CA



2SD2348LBSONY



BAS16



DAN202K



DAP202K



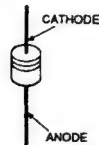
DA204K
1SS226



EL1Z
GP08D(GP08DPKG23)
P6KE200AG23
RGP02-20EL-6394
RGP10GPKG23
S2L40F
UF4005PKG23
1SS83



D1N20R
ERA82-004TP5
MTZJ-13
MTZJ-3.6A
MTZJ-T-77-24
MTZJ-T-77-3.6
RD13ES-B2
RD20ES-B1
RD20ES-B2
RD3.3ES-B2
RD3.9ES-B1
RD33ES-B2
RD39ES-B2
RD5.1ES-B2
RD5.6ES-B2
RD9.1ES-B1
1SS119-25
1SS133T-77
11EQS04



D10SC4M



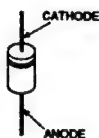
D10SC4M
D8LC40



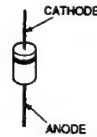
D6SB60L
RBA-4068



D2S4M



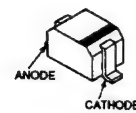
D3S4M-F
EGP10D
ERC04-06S
ERC06-15S
ERC91-02
RU-IC
S2LA20F



ERC38-06
U05G
V09C
V19E



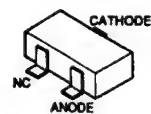
MA110



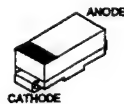
MA3100H
MA3051M
MA3075M-TX
RD13M-B3
RD3.9M-B1
RD5.1M-B2
RD7.5M-B2



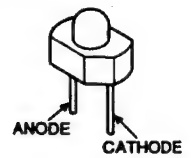
MA3240-TX



SC802-06



SLR-325VCT31

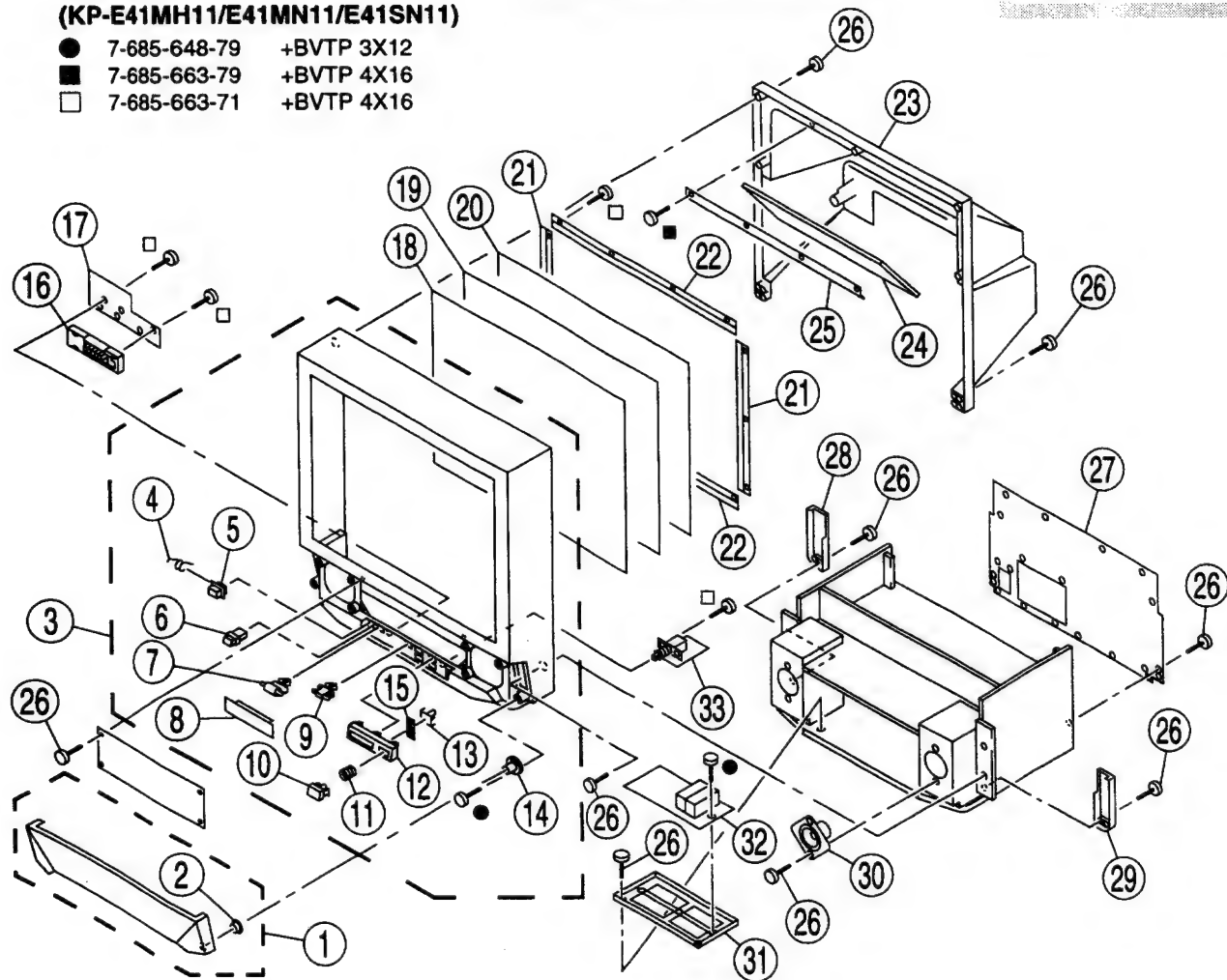


7-1. COVER
(KP-E41MH11/E41MN11/E41SN11)

- 7-685-648-79 +BVTP 3X12
- 7-685-663-79 +BVTP 4X16
- 7-685-663-71 +BVTP 4X16

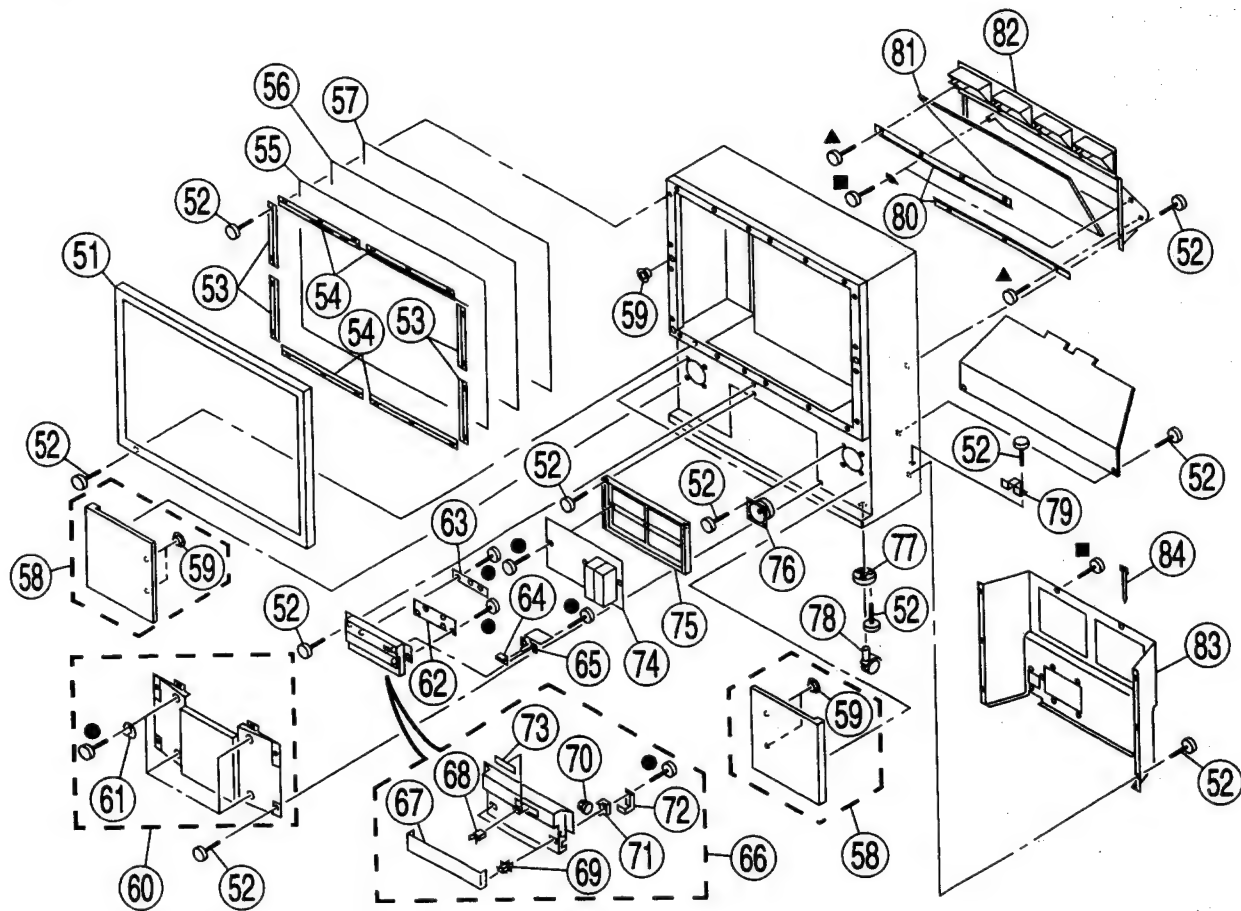
anticipated when ordering these items.

ne les remplacer que par une
 pièce portant le numéro spécifié.



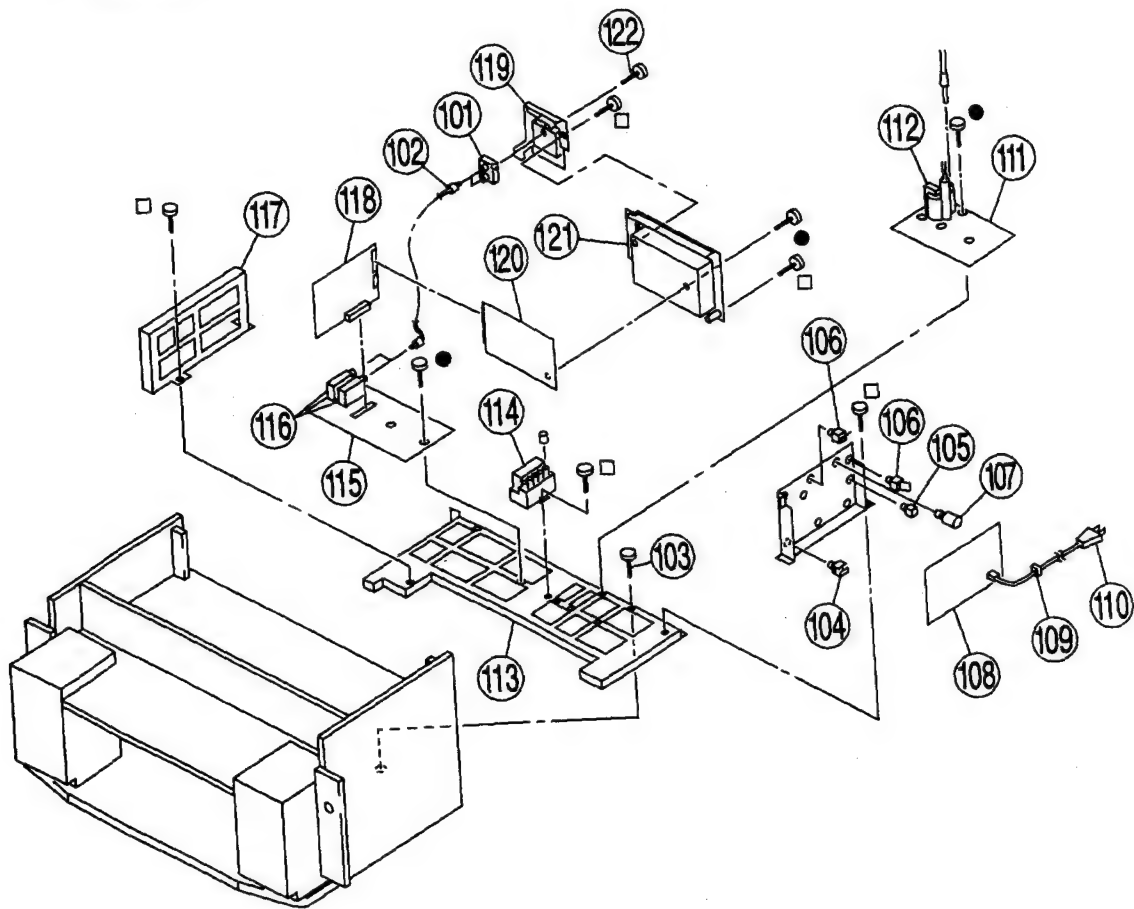
7-2. COVER
(KP-E53MH11/E53MN11/E53SN11)

- 7-685-648-79 +BVTP 3X12
- 7-685-661-79 TAPPING SCREW DIA.4X12
- 7-685-663-79 +BVTP 4X16



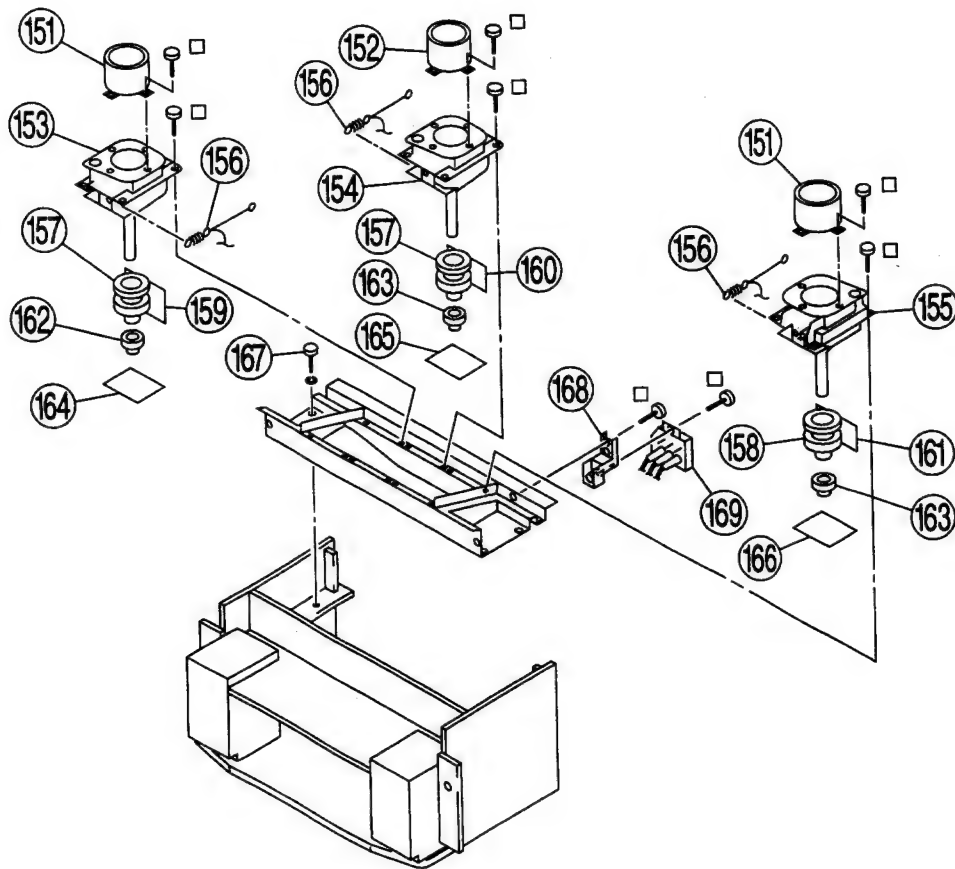
7-3. CHASSIS

- 7-685-648-79 +BVTP 3X12
□ 7-685-663-71 +BVTP 4X16



7-4. PICTURE TUBE

□ 7-685-663-71 +BVTP 4X16





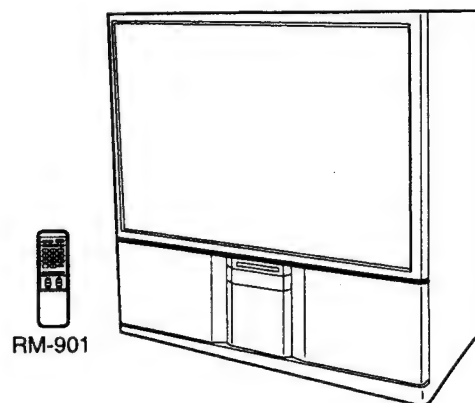
SONY -08945

SERVICE MANUAL

RG-1 CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.
KP-E61MH11	RM-901	Hong Kong	SCC-K62C-A
KP-E61MH11	RM-901	ME	SCC-K61C-A
KP-E61MN11	RM-901	GE	SCC-K63C-A
KP-E61SN11	RM-901	Austrarian	SCC-K64C-A

MODEL	COMMANDER	DEST.	CHASSIS NO.
-------	-----------	-------	-------------



※ Please file according to model size..... ■

61

PROJECTION TV SONY®

SPECIFICATIONS

Projection system

3 picture tubes, 3 lenses, horizontal in-line system

Picture tube

7 inch high-brightness monochrome tubes (6.3 raster size), with optical coupling and liquidcooling system

Projection lenses

High performance, large-diameter hybrid lens F1.0

Screen size

61 inches

Television system

B/G, I, D/K, M

Color system

PAL, PAL 60, SECAM, NTSC^{4,43}, NTSC^{3,58}

Channel coverage

See "Channel coverage" at the bottom

Antenna

75 ohm external antenna terminal

Audio output (Speaker)

15 W x 2

Number of terminals

Video Input: 4, Output: 1

Audio Input: 4, Output: 1

S1 Video/S Video

Input: 4, Output: 1

Y: 1 Vp-p, 75 ohms, unbalanced, sync negative,

C: 0.286 Vp-p, 75 ohms

Power requirement

110 - 240 V AC, 50/60 Hz

Power consumption

175 W

Dimensions (w/h/d)

1336 x 1519 x 647 mm

Mass

Approx. 130 kg

Supplied accessories

Remote commander RM-901 (1)

Size R6 (AA) battery (1)

Design and specifications are subject to change without notice.

Channel coverage

M E/ASIA/CATV W EURO

Receivable channel Channel display

E-2 to E-12 C02 to C12

E-21 to E-69 C21 to C69

S-01 to S-03 S42 to S44

S-1 to S-41 S01 to S41

Indonesia

1A C01

2 to 11 C03 to C12

Morocco

M-4 to M-7 C70 to C73

M-8 to M-10 C08 to C10

New Zealand

1 C01

2 to 11 C03 to C12

27 to 62 C27 to C62

HK/UK

Receivable channel Channel display

Hong Kong, United Kingdom

B-21 to B-68 C21 to C68

Ireland

A to J C01 to C09

South Africa

4 to 13 C04 to C13

21 to 68 C21 to C68

AUSTRALIA

Receivable channel Channel display

Australia

AS-0 to AS-12 C00 to C12

AS-5A, AS-9A C13, C14

AS-28 to AS-69 C28 to C69

New Zealand

1 C00

2 to 3 C01 to C02

4 to 7 C06 to C09

8 C14

9 to 11 C10 to C12

CHINA/E EURO

Receivable channel Channel display

China

C-1 to C-2 C01 to C02

C-3 C13

C-4 C03

C-5 C04

C-6 C14

C-7 to C-12 C06 to C11

C-13 to C-24 C21 to C32

C-25 to C-47 C38 to C60

C-48 to C-57 C61 to C70

Z-1 to Z-39 S01 to S39

Eastern Europe

R-1 to R-12 C01 to C12

R-21 to R-60 C21 to C60

AMERICA/CATV AMERICA

Receivable channel Channel display

2 to 79 C02 to C79

A-1 S99

A-2 S98

A-3 S97

A-4 S96

A-5 S95

A-6 S06

A-7 S05

A-8 S01

A to W S14 to S36

AA to CCC S37 to S65

JAPAN

Receivable channel Channel display

J-1 to J-62 C01 to C62

C-13 to C-32 C80 to C99

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(CAUTION)
SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

SAFETY-RELATED COMPONENT WARNING!!
COMPONENTS IDENTIFIED BY SHADING AND MARK Δ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

(ATTENTION)
APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION AUX COMPOSANTS RELATIFS Á LA SÉCURITÉ!!
LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MAPQUE Δ SUR LES SCHEMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIÉCES CONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÉCE EST INDiqué DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY. LES RÉGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT SONT IDENTIFIÉS DANS LE PRÉSENT MANUEL. SUIVRE CES PROCÉDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONCTIONNEMENT EST SUSPECTÉ.

SECTION 1 GENERAL

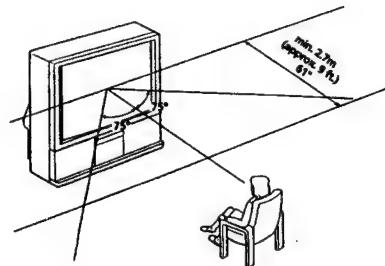
The operation instruction mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

Getting Started

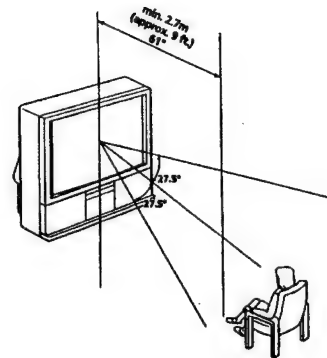
Installing the projection TV

For the best picture quality, install the projection TV within the areas shown below.

Optimum viewing area (Horizontal)

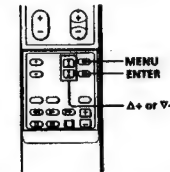


Optimum viewing area (Vertical)



Changing the menu language

If you prefer Chinese to English, you can change the menu language. You can use the buttons on both the remote commander and the projection TV.



1 Press POWER on the projection TV.



2 Press MENU.



VIDEO CONTROL
AUDIO CONTROL
FEATURES
PRESET
LANGUAGE

3 Press Δ+ or ∇- to move the cursor (▶) to LANGUAGE.



VIDEO CONTROL
AUDIO CONTROL
FEATURES
PRESET
▶ LANGUAGE

4 Press ENTER.



LANGUAGE ▶
ENGLISH
CHINESE/中文

5 Press Δ+ or ∇- to select CHINESE.



LANGUAGE ▶
ENGLISH
▶ CHINESE/中文

6 Press ENTER.



雙 LANGUAGE
英文/ENGLISH
▶ 中文

7 Press MENU to return to the normal screen.



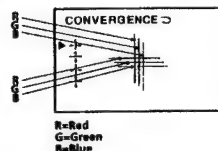
Adjusting the convergence (CONVERGENCE)

Before you use the projection TV, adjust convergence. The projection tube image appears on the screen in three layers (red, green and blue). If they do not converge, the color is poor and the picture blurs. To correct this, adjust convergence. After 20-30 minutes of turning on the power, adjust convergence.

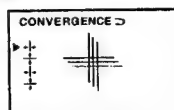
1 Press MENU.

2 Press Δ + or ∇ - to move the cursor (\blacktriangleright) to FEATURES and press ENTER.

3 Press Δ + or ∇ - to move the cursor (\blacktriangleright) to CONVERGENCE and press ENTER.
The CONVERGENCE adjustment screen appears.

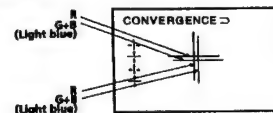


4 Press Δ + or ∇ - to move the cursor (\blacktriangleright) to the symbol showing the line you want to adjust, and press ENTER.



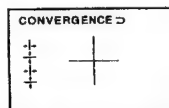
- + : Red vertical line (left/right adjustment)
- + : Red horizontal line (up/down adjustment)
- + : Blue vertical line (left/right adjustment)
- + : Blue horizontal line (up/down adjustment)

5 Press Δ + or ∇ - to move the line until it converges with the center green line, and press ENTER.



To move up/right, press Δ +.
To move down/left, press ∇ -.

6 Repeat step 4 and 5 to adjust the other lines until all three lines converge and are seen as a white cross.



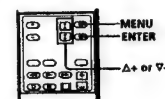
7 Press MENU to return to the normal screen.

Presetting channels

You can preset TV channels easily by storing all the receivable channels automatically. You can also preset channels manually or skip program positions (page 23). You can preset channels using the buttons on the projection TV as well as those on the remote commander.

Presetting channels automatically

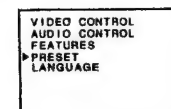
You can preset up to 100 TV channels in numerical sequence from program position 1.



1 Press MENU.



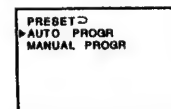
2 Press Δ + or ∇ - to move the cursor (\blacktriangleright) to PRESET.



3 Press ENTER.



4 Press Δ + or ∇ - to select AUTO PROGR.



5 Press ENTER.



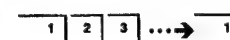
6 Press Δ + or ∇ - to select your area (channel system).

For the areas allocated in each channel system, see "Channel allocation" on page 27.



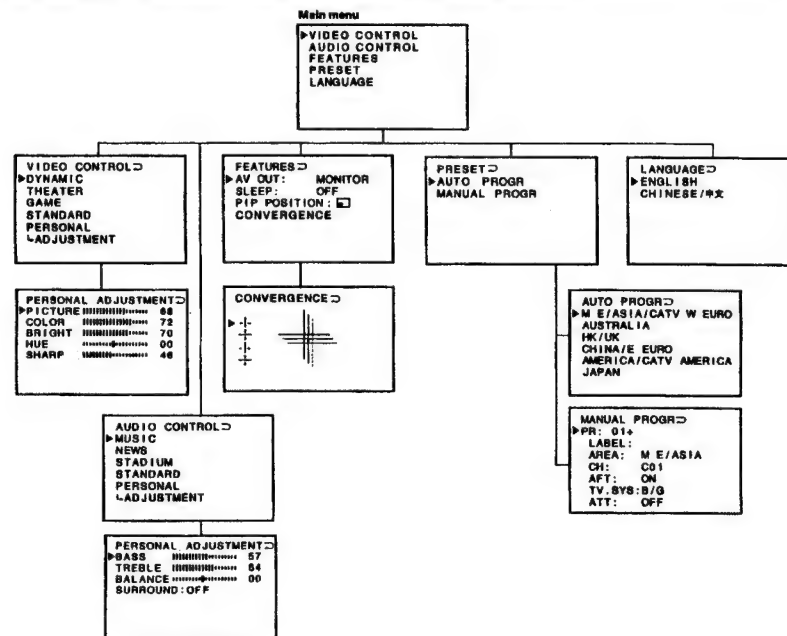
7 Press ENTER.

Presetting starts from program 1.



Introducing the menu

You can preset channels and set picture quality, sound, and other settings using the on-screen menus. You can use the buttons on both remote commander and the projection TV to operate the menus.



Getting back to the previous menu

Press Δ or ∇ to move the cursor (\blacktriangleright) to the first line (\square) of each menu (except for the main menu), and press ENTER.

Cancelling the menu screen

Press MENU.

Note
• If more than 60 seconds elapse after you press a button, the menu screen disappears automatically.

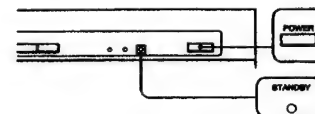
Operations

Watching the TV

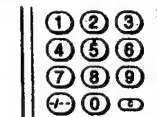
1 Select the TV program you want to watch.

Press the number buttons or PROGR +/- . The projection TV turns on automatically and the selected program appears.

When the STANDBY indicator on the front of the projection TV is not lit, press POWER on the projection TV, and select the program position.



To select a program position directly
Press the number buttons.



To select a two-digit program position, press "-/-" before the number buttons.

For example, to select program position 25, press "-/-" and then "2" and "5."



To scan through program positions

Press PROGR +/- until the program position you want appears.



To select a channel directly

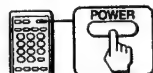
Press C (once for VHF/UHF channels, twice for cable TV channels), then press the number buttons (two-digit number for VHF/UHF channels, three-digit number for cable TV channels). For example, to select the VHF/UHF channel 4, press C, 0 then 4.

2 Press VOL +/- to adjust the volume.



Switching off the projection TV

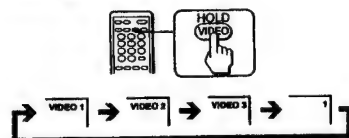
To switch off the projection TV temporarily, press **POWER** on the remote commander.
The **STANDBY** indicator lights.



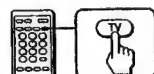
To switch off the projection TV completely, press **POWER** on the TV.

Watching the video input

Press **VIDEO/HOLD**.

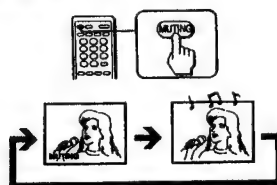


To watch projection TV, press **TV**, the number buttons or **PROGR +/-**.



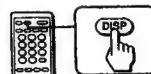
Muting the sound

Press **MUTING**.



Displaying on-screen information

Press **DISP**.



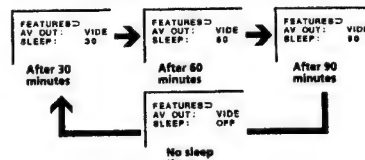
Note

- When you press **DISP**, the on-screen display shows the picture and sound settings as well, all of which disappear after three seconds.

Setting the Sleep Timer

You can set the projection TV to turn off automatically after the period of time you set.

- Press **MENU**.
- Press Δ or ∇ to move the cursor (\triangleright) to **FEATURES**, and press **ENTER**.
- Press Δ or ∇ to move the cursor (\triangleright) to **SLEEP**, and press **ENTER**.
- Press Δ or ∇ until the time (in minutes) you want appears.

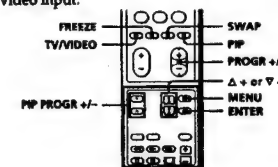


- Press **ENTER**.

To cancel the Sleep Timer, select **OFF**, or turn the projection TV off.

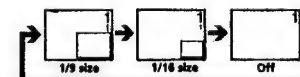
Using the Picture-in-Picture features

You can display a Picture-in-Picture (PIP) screen (small picture) within the main picture of a TV program or a video input.



Displaying PIP

Press **PIP**.



Selecting a TV program or video input in the PIP screen

To select a TV program, press **PIP PROGR +/-** (yellow buttons).

To select a video input, press **TV/VIDEO**.

Swapping pictures between the main and PIP screens

Press **SWAP**.



Changing the position of the PIP screen

- Press **MENU**.

VIDEO CONTROL
AUDIO CONTROL
FEATURES
PRESET
LANGUAGE

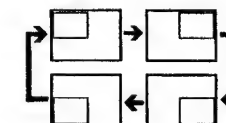
- Press Δ or ∇ to move the cursor (\triangleright) to **FEATURES**, and press **ENTER**.

FEATURES \triangleright
AV OUT: MONITOR
SLEEP: OFF
PIP POSITION: \square
CONVERGENCE

- Press Δ or ∇ to move the cursor (\triangleright) to **PIP POSITION**, and press **ENTER**.

FEATURES \triangleright
AV OUT: MONITOR
SLEEP: OFF
PIP POSITION: \square
CONVERGENCE

- Press Δ or ∇ to select the position you want.
Pressing Δ changes the position as shown below.
Pressing ∇ changes the position in reverse order.



Freezing the PIP screen

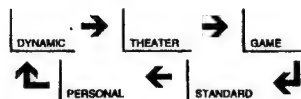
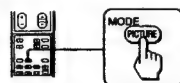
Press **FREEZE**.

To restore the normal picture, press **FREEZE** again.

Selecting the picture mode

You can select the picture mode using the menu as well as the PICTURE MODE button on the remote commander. Select VIDEO CONTROL from the main menu, then select the desired mode.

Press PICTURE MODE until the mode you want appears on the screen.



Select	To
DYNAMIC	Display more contrast picture
THEATER	Display darker and finely detailed picture suitable for movies
GAME	Display softer picture suitable for the video games
STANDARD	Display normal contrast picture
PERSONAL	Display the picture that is adjusted using ADJUSTMENT in the VIDEO CONTROL menu

Viewing a video game screen

Press PICTURE MODE until the GAME mode appears on the screen. The screen changes to the optimum mode for video games with soft picture.

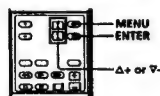
If the fixed (non-moving) pattern is on the screen for long periods of time
Keep the picture functions at low settings (see "Adjusting the picture setting" on page 14). If not, the image may be permanently imprinted on the screen.

Note

- To prevent imprints on the screen, the picture shifts horizontally and vertically about 5 mm every 2 hours. This is not a malfunction of the TV.

Adjusting the picture setting (ADJUSTMENT)

You can adjust the picture quality to suit your taste with the ADJUSTMENT option. The adjusted settings are stored in the PERSONAL option.



1 Press MENU.

VIDEO CONTROL
AUDIO CONTROL
FEATURES
PRESET
LANGUAGE

2 Press Δ + or ∇ - to move the cursor (▷) to VIDEO CONTROL, and press ENTER.

VIDEO CONTROL▷
DYNAMIC
THEATER
GAME
STANDARD
PERSONAL
ADJUSTMENT

3 Press Δ + or ∇ - to move the cursor (▷) to ADJUSTMENT, and press ENTER.

PERSONAL ADJUSTMENT▷
PICTURE 00
COLOR 72
BRIGHT 70
HUE 00
SHARP 46

4 Press Δ + or ∇ - to move the cursor (▷) to the item you want to adjust, and press ENTER

5 Press Δ + or ∇ - to adjust the item, and press ENTER.

Item	Press Δ + to	Press ∇ - to
PICTURE	Increase picture contrast	Decrease picture contrast
COLOR	Increase color intensity	Decrease color intensity
BRIGHT	Brighten the picture	Darken the picture
HUE	Make skin tones become greenish	Make skin tones become reddish
SHARP	Sharpen the picture	Soften the picture

6 To adjust other items, repeat steps 4 and 5.

7 Press MENU to return to the normal screen.

Note

- You can adjust HUE for NTSC color system only.

If the color of the picture is abnormal when receiving programs through the T (antenna) terminal

Press COLOR SYSTEM on the projection TV or change the TV system setting from the menu as described below until the color becomes normal.

1 Press MENU.

2 Press Δ + or ∇ - to move the cursor (▷) to PRESET, and press ENTER.

3 Press Δ + or ∇ - to move the cursor (▷) to MANUAL PROGR, and press ENTER.

4 Press Δ + or ∇ - to move the cursor (▷) to TV SYS, and press ENTER.

5 Press Δ + or ∇ - to change the TV system until the color becomes normal.

Note

- Normally set COLOR SYSTEM to AUTO.

Selecting the sound mode

You can select the sound mode using the menu as well as the SOUND MODE button on the remote commander. Select AUDIO CONTROL from the main menu, then select the desired mode.

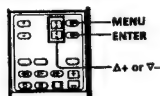
Press SOUND MODE until the mode you want appears on the screen.



Select	To
MUSIC	Listen to music programs. It gives sound with a live concert effect.
NEWS	Listen to news program. A person's voice can be heard clearly.
STADIUM	Listen to sports program. It gives sound with a sports stadium effect.
STANDARD	Listen to sound other than music, news or sports program.
PERSONAL	Listen to the sound that is adjusted using ADJUSTMENT in the AUDIO CONTROL menu.

Adjusting the sound setting (ADJUSTMENT)

You can adjust the sound quality to suit your taste with the ADJUSTMENT option. The adjusted settings are stored in the PERSONAL option.



1 Press MENU.

VIDEO CONTROL
AUDIO CONTROL
FEATURES
PRESET
LANGUAGE

2 Press Δ+ or ∇- to move the cursor (▶) to AUDIO CONTROL, and press ENTER.

AUDIO CONTROL
▶ MUSIC
NEWS
STADIUM
STANDARD
PERSONAL
ADJUSTMENT

3 Press Δ+ or ∇- to move the cursor (▶) to ADJUSTMENT, and press ENTER.

PERSONAL ADJUSTMENT
▶ BASS 00000000 57
TREBLE 00000000 64
BALANCE 00000000 00
SURROUND OFF

4 Press Δ+ or ∇- to move the cursor (▶) to the item you want to adjust, and press ENTER.

5 Press Δ+ or ∇- to adjust the item, and press ENTER.

Item	Press Δ+ to	Press ∇- to
BASS	Increase the bass sound	Decrease the bass sound
TREBLE	Increase the treble sound	Decrease the treble sound
BALANCE	Increase the volume of right speaker	Increase the volume of left speaker

6 To adjust other items, repeat steps 4 and 5.

7 Press MENU to return to the normal screen.

16-EN Operations

Listening to surround sound

You can enjoy a surround sound effect that is like being in a movie theater or a concert hall when receiving stereo signals.

1 Press MENU.

2 Press Δ+ or ∇- to move the cursor (▶) to AUDIO CONTROL, and press ENTER.

3 Press Δ+ or ∇- to move the cursor (▶) to ADJUSTMENT, and press ENTER.

PERSONAL ADJUSTMENT
▶ BASS 00000000 57
TREBLE 00000000 64
BALANCE 00000000 00
SURROUND OFF

4 Press Δ+ or ∇- to move the cursor (▶) to SURROUND, and press ENTER.

5 Press Δ+ or ∇- to select ON, and press ENTER.

If the sound is distorted or noisy when receiving programs through the T (antenna) terminal

Press COLOR SYSTEM on the projection TV or change the TV system setting as follows until the sound becomes clear.

1 Press MENU.

2 Press Δ+ or ∇- to move the cursor (▶) to PRESET, and press ENTER.

3 Press Δ+ or ∇- to move the cursor (▶) to MANUAL PROGR, and press ENTER.

4 Press Δ+ or ∇- to move the cursor (▶) to TV SYS, and press ENTER.

5 Press Δ+ or ∇- to change the TV system until the sound becomes clear.

Note

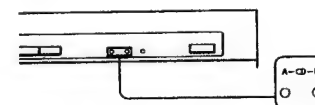
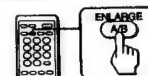
- Normally set COLOR SYSTEM to AUTO.

Selecting a stereo or bilingual program

You can enjoy stereo sound or bilingual program of NICAM and A2 (German) stereo systems. The initial setting is stereo sound.

Press A/B/ENLARGE repeatedly until you receive the sound you want.

The sound changes and the corresponding indicator lights up as follows:



When receiving a NICAM program:

Broadcasting	On-screen Display	Selected sound (Indicator lit)
NICAM stereo	NICAM	Stereo → Regular (A and B)
NICAM bilingual	NICAM	A → B → Regular (A) (B)
NICAM monaural	NICAM	NICAM monaural (A) Regular

When receiving an A2 (German) stereo program:

Broadcasting	On-screen display	Selected sound (Indicator lit)
A2 (German) stereo	STEREO	Stereo → Monaural (A and B)
A2 (German) bilingual	—	A → B (A) (B)

Receiving area for NICAM and A2 (German) stereo programs

System	Receiving area
NICAM	Hong Kong, Singapore, New Zealand, etc.
A2 (German) stereo	Australia, Malaysia, Thailand, etc.

Notes

- If the signal is very weak, the sound becomes monaural.
- If the stereo sound is noisy, select "regular" or "mono." The sound becomes monaural, however, the noise will be reduced.

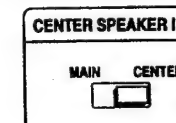
You cannot receive stereo broadcasts in mainland China.

Setting the speaker switch

If you connect a Dolby Pro Logic-compatible amplifier to the CENTER SPEAKER IN terminals, you can use the projection TV speakers as center speakers.

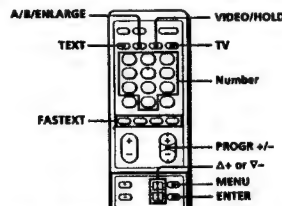
To use the projection TV speakers as center speakers, set the CENTER SPEAKER IN switch located at the rear of the projection TV to CENTER.

To listen to the sound from the projection TV, set to MAIN. See page 25 for connection.



Viewing Teletext

TV stations broadcast an information service called Teletext via a local TV channel. Teletext service allows you to receive various information such as weather forecasts or news at any time. Some of the features, however, may not be available depending on the Teletext service.



Note on Teletext

- Teletext service is not available in Chinese.

Displaying Teletext

- 1 Select a TV channel which carries the Teletext broadcast you want to watch.
- 2 Press **TEXT** to display the Teletext. A Teletext page (normally the index page) is displayed on the left. If there is no Teletext broadcast, P100 appears in the top left corner of the screen.

To switch Teletext off, press **TV**.

Superimposing a Teletext page on the TV picture

Press **TEXT**.

Each time you press **TEXT**, the screen changes as follows:



Checking the contents of a Teletext service (INDEX)

When Teletext is switched on, you can display the Teletext menu.

- 1 Press **MENU**.

```

    INDEX
    TEXT CLEAR
    SUBTITLES : OFF
    REVEAL
    TIME PAGE
    SUBPAGE
  
```

- 2 Press **Δ + or ∇ -** to move the cursor (▷) to **INDEX**, and press **ENTER**.

Selecting a Teletext page

Press the number buttons to enter the three-digit page number of the Teletext number you want. If you make a mistake, re-enter the correct page number.

To access the next or previous page, press **PROGR +/-**.

Note

- When you request another Teletext page while viewing one Teletext page, the page scrolling may pause on a different page depending on the Teletext service, but the search will continue till the requested page is displayed.

Preventing a Teletext page from being updated (HOLD)

A Teletext page may consist of several subpages. You can stop the page scrolling in order to read the text at your own pace.

Press **VIDEO/HOLD**.

HOLD appears in the top left corner of the screen.

To resume normal Teletext operation, press **TEXT**.

Using FASTEXT

This feature allows you to quickly access a Teletext page that uses FASTEXT. When a FASTEXT page is broadcast, a color-coded menu appears at the bottom of the screen. The colors of the menu correspond to the red (TV/VIDEO), green (FREEZE), yellow (SWAP) and blue (PIP) buttons on the remote commander. These colored buttons function as the FASTEXT buttons in Teletext mode.

Press the colored button which corresponds to the color-coded menu. The page is displayed after a few seconds.

Enlarging the Teletext display (ENLARGE)

Each time you press **A/B/ENLARGE**, the Teletext display changes as follows:

→ Enlarge upper half → Enlarge lower half → Normal size →

Revealing concealed information (REVEAL)

Sometimes pages contain concealed information, such as answers to a quiz. The reveal option discloses the information.

- 1 Press **MENU**.
- 2 Press **Δ + or ∇ -** to move the cursor (▷) to **REVEAL**, and press **ENTER**.
- 3 Press **Δ + or ∇ -** to select **ON**, and press **ENTER**.

To conceal the information again, select **OFF**.

Watching a TV program while waiting for a requested Teletext page (TEXT CLEAR)

- 1 Select the Teletext page to which you want to refer.
- 2 Press **MENU**.
- 3 Press **Δ + or ∇ -** to move the cursor (▷) to **TEXT CLEAR**, and press **ENTER**.
- 4 When the page number is displayed on the screen, press **TEXT** to switch the Teletext on.

To restore the normal Teletext reception, press **TEXT**.

Displaying subtitles (SUBTITLES)

Your Teletext service informs you if a TV program is subtitled.

- 1 Press **MENU**.
- 2 Press **Δ + or ∇ -** to move the cursor (▷) to **SUBTITLES**, and press **ENTER**.

Note

- If the subtitles are not broadcast on page 888, select the subtitle page using the number buttons.

Displaying a Teletext page at the requested time (TIME PAGE)

You can display a time-coded page (e.g. an alarm page) at the time you preset.

- 1 Press **MENU**.
- 2 Press **Δ + or ∇ -** to move the cursor (▷) to **TIME PAGE**, and press **ENTER**.
- 3 Press the number buttons to enter four digits for the desired time. For example, to enter 7:30, press 0, 7, 3 and 0.



At the requested time, the page appears on the screen.

To restore the normal Teletext reception, press **TEXT**.

Displaying a particular page among several subpages (SUBPAGE)


- 1 Press **MENU**.
- 2 Press **Δ + or ∇ -** to move the cursor (▷) to **SUBPAGE**, and press **ENTER**.
- 3 Press the number buttons or **PROGR +/-** to enter four digits for the desired subpage. For example, to display the second page of a sequence, press 0, 0, 0 and 2.



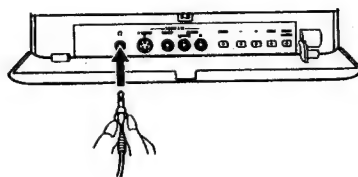
Using headphones

You can use headphones to enjoy the sound of the TV. This feature does not allow you to enjoy the sound of PIP screens.

Listening to the sound of the projection TV with headphones

Insert the headphones into the  (headphones) jack located on the front panel of the projection TV.

The sound from the speaker is shut off. To adjust the headphones volume, press VOL +/-.



Customizing the projection TV

Using the AV OUT (advance rec-out) terminal

You can select the output signal from the VIDEO jacks at the rear of the projection TV. The S Video output can be used only when MONITOR is selected.

1 Press MENU.

2 Press Δ + or ∇ - to select FEATURES, and press ENTER.

```
FEATURES▷
▷AV OUT:  MONITOR
SLEEP:    OFF
PIP POSITION: □
CONVERGENCE
```

3 Press Δ + or ∇ - to select AV OUT, and press ENTER.

4 Press Δ + or ∇ - to select the output signal, and press ENTER.

Select	To
TV	Output the TV signal.
MONITOR	Output the signal of the picture you are watching as a main picture.

Note

- Do not change the channel while recording with a VCR through the MONITOR/TV OUT jacks. If you change the channel, it also changes the channel you are recording.

Presetting channels manually

To change the program position for a channel or to receive a channel with a weak signal, preset the channel manually. For example, preset a channel in program position 8.

1 Press MENU.

2 Press Δ + or ∇ - to move the cursor (\triangleright) to PRESET, and press ENTER.

```
PRESET▷
▷AUTO  PROGR
MANUAL PROGR
```

3 Press Δ + or ∇ - to select MANUAL PROGR, and press ENTER.

```
MANUAL PROGR▷
▷PR: 014
LABEL:
AREA:  M E/ASIA
CH:    C01
AFT:   ON
TV.BVS: B/G
ATT:   OFF
```

4 Select the program position to which you want to preset a channel.

- Press Δ + or ∇ - to select PR, and press ENTER.
- Press Δ + or ∇ - to select 8. You can also select the program position with PROGR +/- or the number buttons (e.g. for program 24, press +/-, 2 and 4).
- Press ENTER.

5 Select your area (channel system).

For the areas allocated in each channel system, see "Channel allocation" on page 27.

- Press Δ + or ∇ - to select AREA, and press ENTER.
- Press Δ + or ∇ - to select your area, and press ENTER.

6 Select a channel which you want to preset.

- Press Δ + or ∇ - to select CH, and press ENTER.
- Press Δ + or ∇ - until the channel you want appears on the screen. You can also select the channel directly using the number buttons. Press C (once for VHF/UHF channels, twice for cable TV channels), then the number buttons (e.g., for channel 5, press 0 and 5).
- Press ENTER.

To preset other channels
Repeat steps 4 to 6.

Disabling program positions

By disabling unused or unwanted program positions, you can skip those positions when you press PROGR +/-.

For example, disable program position 8.

1 Display the MANUAL PROGR menu. (Follow steps 1 to 3 in "Presetting channels manually" on this page.)

2 Press Δ + or ∇ - to move the cursor (\triangleright) to PR, and press ENTER.

3 Press PROGR + or - until 8 appears.

4 Press Δ + or ∇ - to select "-", and press ENTER.

To skip other program positions, repeat steps 3 and 4.

To restore the skipped program positions

In step 4 above, press Δ + or ∇ - to select "+," and press ENTER.

Customizing channel names

You can caption each channel number using up to five letters to be displayed on the screen.

- 1 Display the **MANUAL PROGR** menu. (Follow steps 1 to 3 in "Presetting channels manually" on page 21.)
- 2 Press Δ + or ∇ - to move the cursor (\triangleright) to **PR**, and press **ENTER**.
- 3 Press Δ + or ∇ - to select the program position you want to caption and press **ENTER**.
- 4 Press Δ + or ∇ - to move the cursor (\triangleright) to **LABEL**, and press **ENTER**.
- 5 Press Δ + or ∇ - to select a letter or number, and press **ENTER** for each caption space (up to five.)
Each time you press Δ + or ∇ -, the letter (number) changes as shown below.
A \rightarrow B \rightarrow ... \rightarrow Z \rightarrow 0 \rightarrow 1 \rightarrow ... \rightarrow 9 \rightarrow - \rightarrow : \rightarrow / \rightarrow . \rightarrow + \rightarrow _ (space)
For the caption space you want to leave blank, select "-".
- 6 Repeat steps 2 to 5 to caption other channels.

To erase a caption

In step 5 above, select " _ (space)." "

Manual fine-tuning

Normally, the automatic fine-tuning (AFT) is operating. However, if the picture of a channel is distorted, you can use the manual fine-tuning function for the channel to obtain better picture reception.

- 1 Display the **MANUAL PROGR** menu. (Follow steps 1 to 3 in "Presetting channels manually" on page 21.)
- 2 Press Δ + or ∇ - to move the cursor (\triangleright) to **PR**, and press **ENTER**.
- 3 Press Δ + or ∇ - to select the program position corresponding to the channel which you want to manually fine-tune, and press **ENTER**.
- 4 Press Δ + or ∇ - to move the cursor (\triangleright) to **AFT**, and press **ENTER**.
- 5 Press Δ + or ∇ - to select **OFF**, and press **ENTER**.
- 6 Press Δ + or ∇ - to fine-tune the channel so that you get the best TV reception.
As you press these buttons, the frequency changes from -128 to +128.
- 7 After fine-tuning, press **ENTER**.
The fine-tuned level is stored.

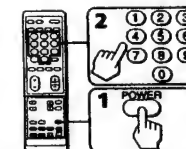
Improving TV signal

If the reception signal is very strong, you can attenuate it to obtain better picture reception.

- 1 Display the **MANUAL PROGR** menu. (Follow steps 1 to 3 in "Presetting channels manually" on page 21.)
- 2 Press Δ + or ∇ - to move the cursor (\triangleright) to **PR**, and press **ENTER**.
- 3 Press Δ + or ∇ - to select the program position corresponding to the channel whose signal is very strong, and press **ENTER**.
- 4 Press Δ + or ∇ - to move the cursor (\triangleright) to **ATT**, and press **ENTER**.
- 5 Press Δ + or ∇ - to select **ON**, and press **ENTER**.

Setting the remote command mode

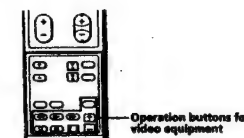
You can use the supplied remote commander to operate the TV and Sony video equipment, such as a VCR or multi-disc player. To operate Sony video equipment, first set the remote command mode for the video equipment you want to use.



- 1 Press and hold the **POWER** button in the VCR control area.
- 2 Press the number buttons that correspond to the remote command mode.

Mode number buttons	Remote command mode
0 and then 1	VTR1 (e.g., Beta format VCR)
0 and then 2	VTR2 (e.g., 8 mm format VCR)
0 and then 3	VTR3 (e.g., VHS format VCR)
0 and then 4	MDP (multi-disc player)

After setting the remote command mode, you can use the following buttons to operate the video equipment.

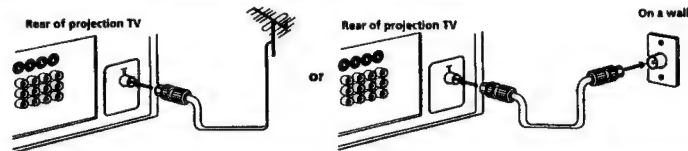


Additional Information

Connections

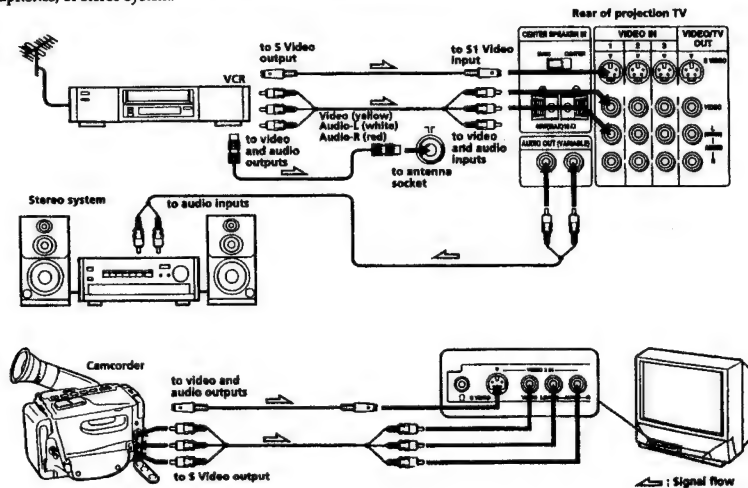
Connecting a VHF antenna or a combination VHF/UHF antenna—75-ohm coaxial cable (round)

Attach an optional IEC antenna connector to the 75-ohm coaxial cable. Plug the connector into the T (antenna) terminal at the rear of the projection TV.



Connecting optional equipment

You can connect optional audio/video equipment to this projection TV such as a VCR, multi-disc player, camcorder, headphones, or stereo system.



When connecting a monaural VCR

Connect the yellow plug to VIDEO and the white plug to AUDIO-L (mono).

If both S Video and video signals are input

The S Video input signal is selected. To view a video signal, disconnect the S Video connection.

Note on the video input


When no signal is input, the screen becomes black and on-screen display becomes dark.

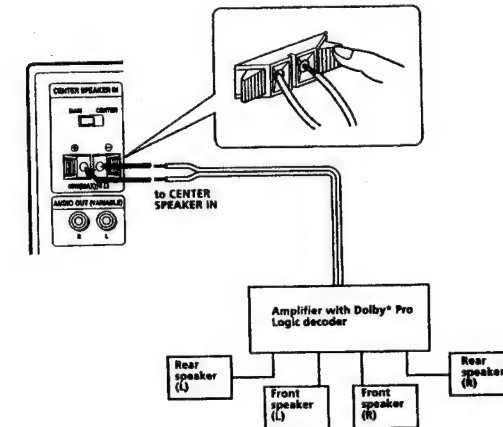
When connecting a VCR to the VIDEO 3 IN jacks

This projection TV is equipped with two sets of the VIDEO 3 IN jacks on the front and rear panels. Front and rear jacks are not available to be used at the same time. When using equipment connected, turn off other equipment not in use.

Connecting an amplifier with Dolby Pro Logic decoder

If you use an amplifier with Dolby Pro Logic decoder instead of the projection TV's audio system, you can still use the projection TV's center speaker.

*Manufactured under license from Dolby Laboratories Licensing Corporation. DOLBY, the double-D symbol  and "PRO LOGIC" are trademarks of Dolby Laboratories Licensing Corporation.



Troubleshooting

If you have any problems, read this manual again and check the countermeasure for each of the symptoms listed below.
If the problem persists, contact your nearest authorized service center or dealer.

Snowy picture Noisy sound



- Check the antenna.
- Check the antenna connection on the projection TV and on the wall.

Dotted lines or stripes



- This may be caused by local interference (e.g. cars, neon signs, hair dryers, etc.) Adjust the antenna for minimum interference.

Double images or "ghosts"



- This may be caused by reflections from nearby mountains or buildings. A highly directional antenna may improve the picture.

Good picture Noisy sound



- Check the TV SYSTEM setting.

No picture No sound



- Press POWER.
- Press POWER to turn the projection TV off for 5 to 6 seconds, then turn it on again by pressing POWER.
- Check the antenna connection.
- Check the VCR connections.

Good picture No sound



- Press VOL +.
- Press MUTE.

No color



- Adjust COLOR in the VIDEO CONTROL menu's ADJUSTMENT option.
- Check the COLOR SYSTEM setting.

TV cabinet creaks

- Even if the picture or the sound is normal, changes in the room temperature sometimes make the TV cabinet expand or contract, making a noise. This does not indicate a malfunction.

Channel allocation

Areas allocated in each channel system

M E/ASIA/CATV W EURO

Afghanistan, Albania, Algeria, Austria, Bahrain, Bangladesh, Belgium, Brunei, Canary Islands, Cyprus, Denmark, Egypt, Finland, Germany, Ghana, Gibraltar, Greece, Iceland, India, Indonesia, Iran, Iraq, Italy, Jordan, Kenya, Republic of Korea, Kuwait, Lebanon, Liberia, Libya, Luxembourg, Malaysia, Malta, Mauritania, Mauritius, Maldives Rep., Morocco, Mozambique, Nepal, Netherlands, New Zealand, Nicaragua, Nigeria, Norway, Oman, Pakistan, Portugal, Qatar, Sarawak, Saudi Arabia, Seychelles, Sierra Leone, Singapore, Spain, Sri Lanka, Sudan, Swaziland, Sweden, Switzerland, Syrian Arab Rep., Tanzania, Thailand, Tunisia, Turkey, Uganda, United Arab Emirates, Western Sahara, Yemen Arab Republic, People's Dem. Rep. of Yemen, Yugoslavia, Zambia, Zimbabwe

AUSTRALIA

Australia, New Zealand

HK/UK

Hong Kong, Ireland, Lesotho, South Africa, United Kingdom

CHINA/EURO

Benin, Bulgaria, China, Congo, Czechoslovakia, Djibouti Republic, Gabon, Guadeloupe, Guiana, Guinea (P.P.R.), Hungary, Ivory Coast, Dem. People's Rep. of Korea, Madagascar, Mongolia, New Caledonia, Niger, Poland, Reunion, Rumania, Senegal, Tahiti, Togo, Former U.S.S.R., Vietnam, Zaire

AMERICA/CATV AMERICA

Bahama Islands, Barbados, Belize, Bermuda, Bolivia, Burma (UHF), Canada, Chile, Colombia, Costa Rica, Cuba, Dominica Republic, Ecuador, El Salvador, Guam, Guatemala, Haiti, Hawaii, Honduras, Jamaica, Laos, Mexico, Panama, Peru, Philippines, Puerto Rico, Surinam, Taiwan, Trinidad & Tobago, U.S.A., U.S.A. (CATV), Venezuela

JAPAN

Burma (Myanmar) (VHF), Japan (VHF, UHF)

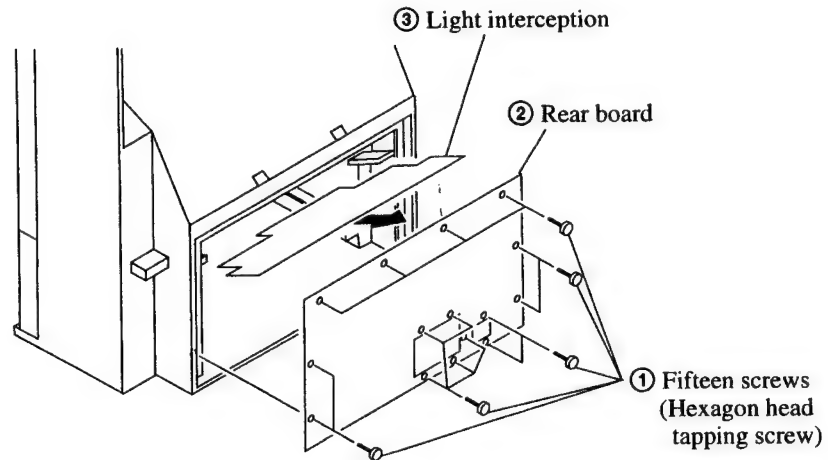
TV and color systems of each channel system

The TV system and color system are automatically set according to the channel system.

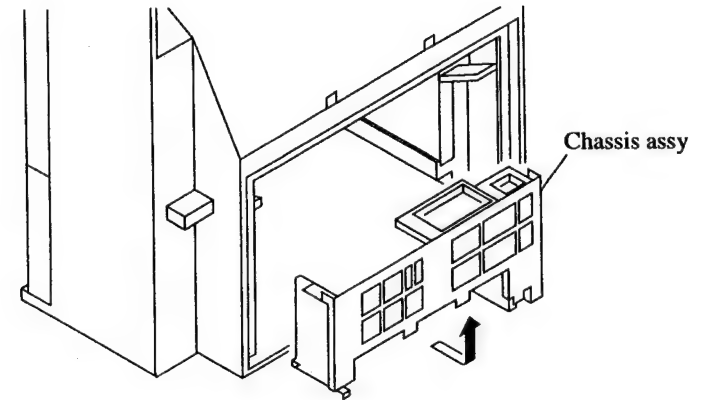
Channel system	TV system	Color system
M E/ASIA/CATV W EURO	B/G, H: West European TV standard	AUTO
AUSTRALIA	B/G, H: Australian TV standard	AUTO
HK/UK	F: British TV standard	AUTO
CHINA/EURO	D/K: East European TV standard	AUTO
AMERICA/CATV AMERICA	M: American TV standard	AUTO
JAPAN	M: Japan TV standard	AUTO

SECTION 2 DISASSEMBLY

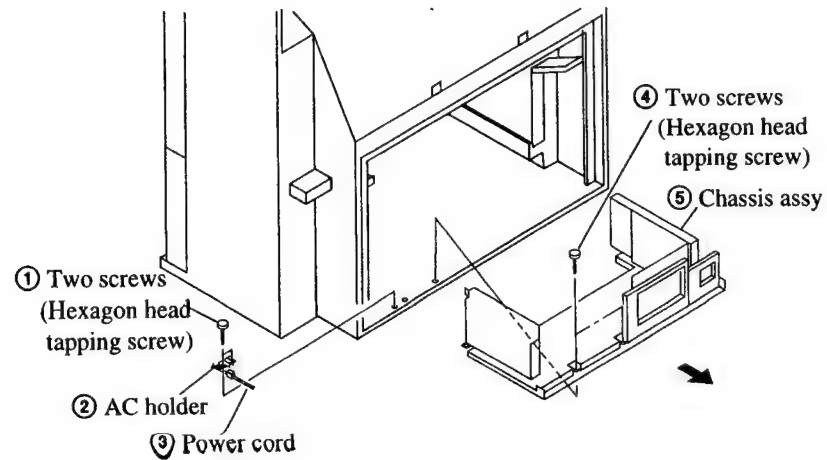
2-1-1. REAR BOARD AND LIGHT INTERCEPTION REMOVAL



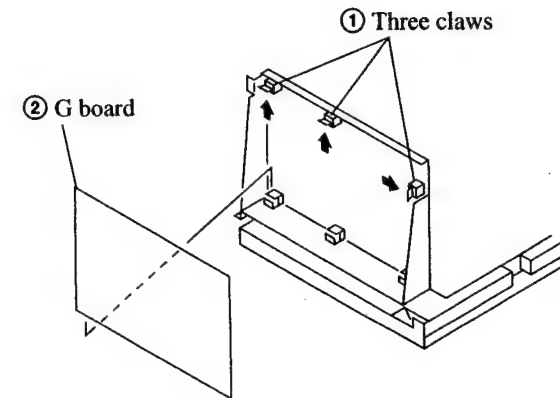
2-1-3. SERVICE POSITION



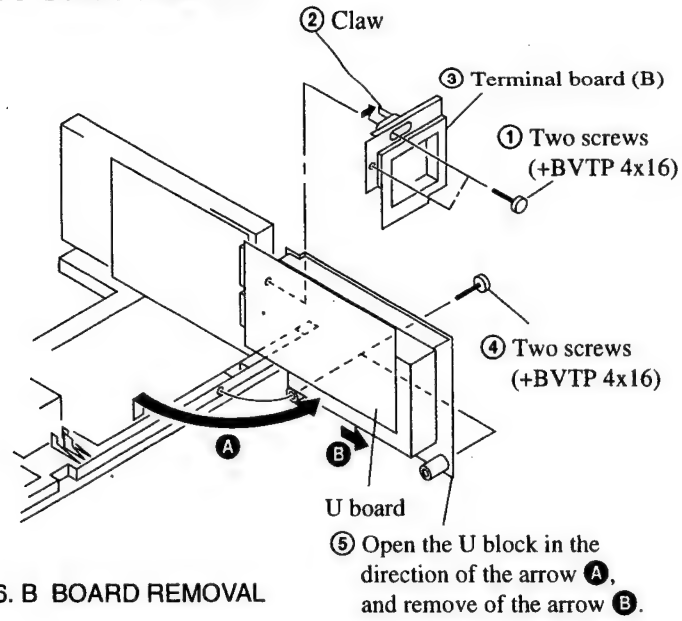
2-1-2. CHASSIS ASSY REMOVAL



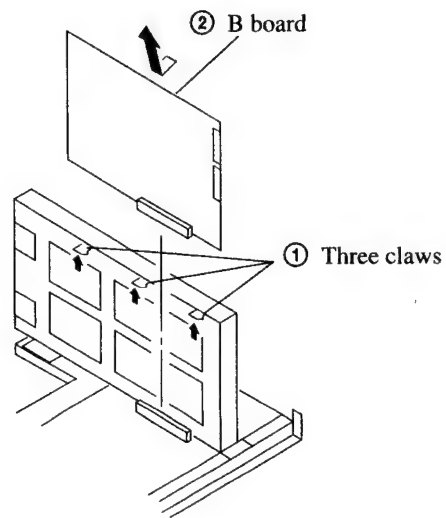
2-1-4. G BOARD REMOVAL



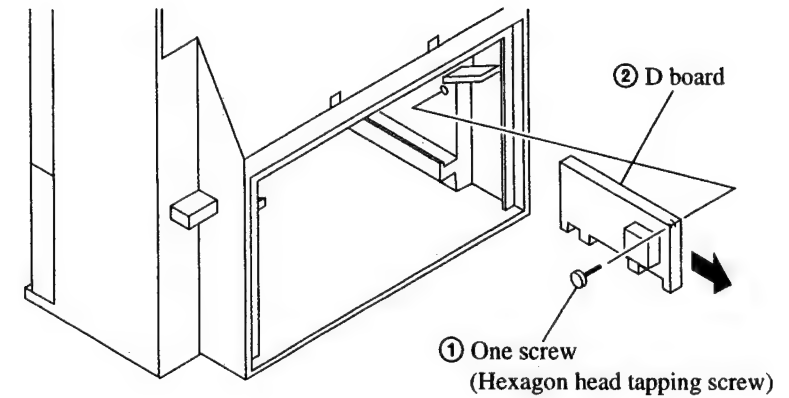
2-1-5. U BOARD REMOVAL



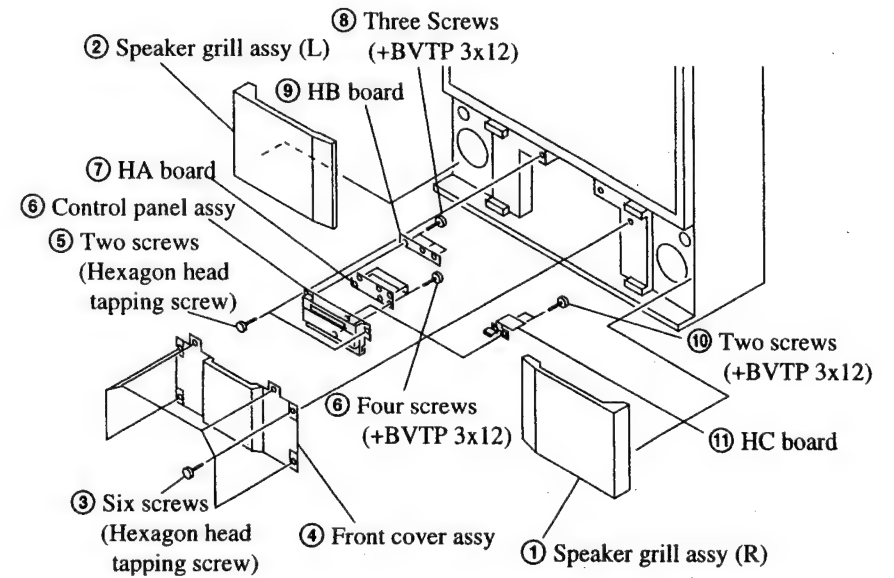
2-1-6. B BOARD REMOVAL



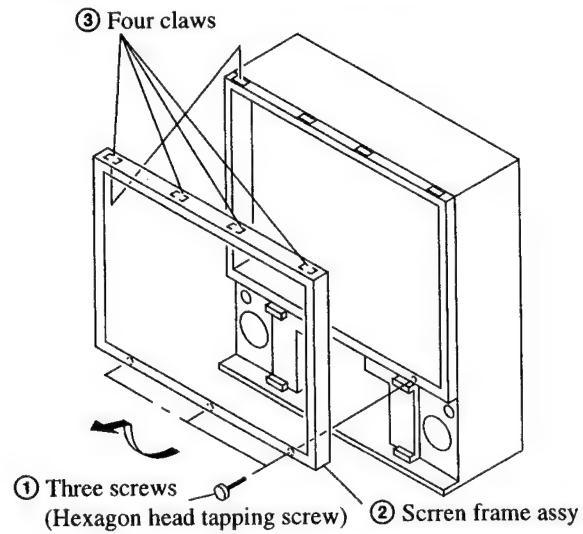
2-1-7. D BOARD REMOVAL



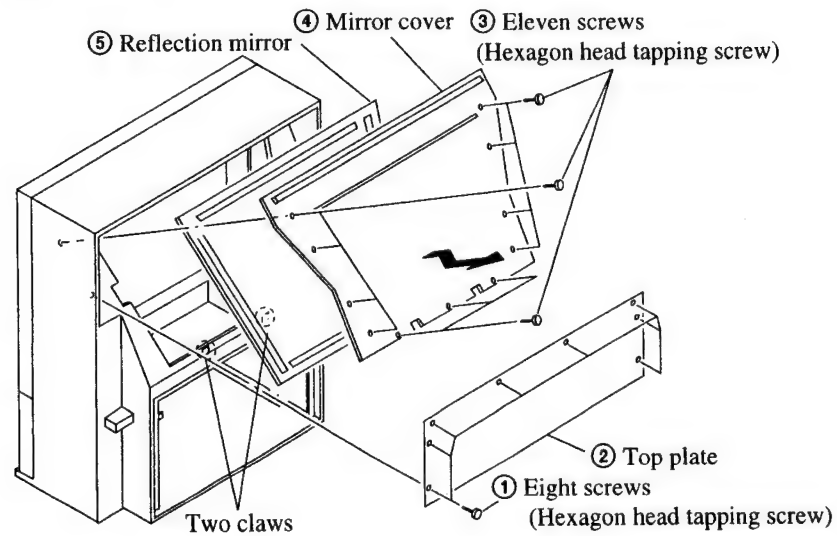
2-1-8. HA, HB AND HC BOARDS REMOVAL



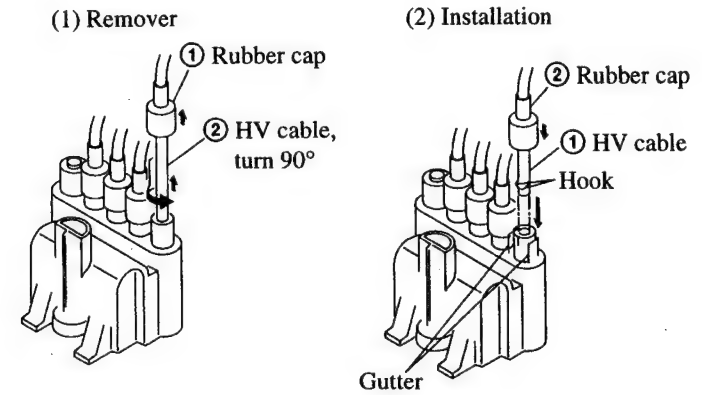
2-1-9. SCREEN FRAME ASSY REMOVAL



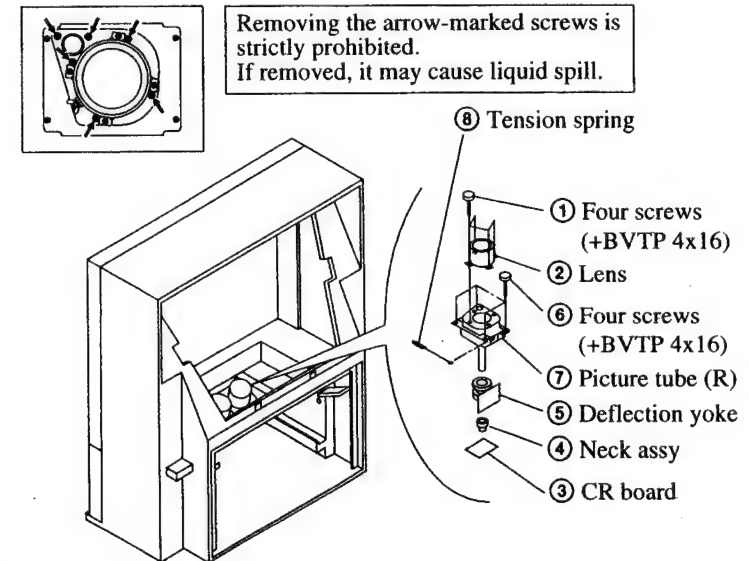
2-1-10. REFLECTION MIRROR REMOVAL



2-1-11. HIGHT-VOLTAGE CABLE INSTALLATION AND REMOVAL

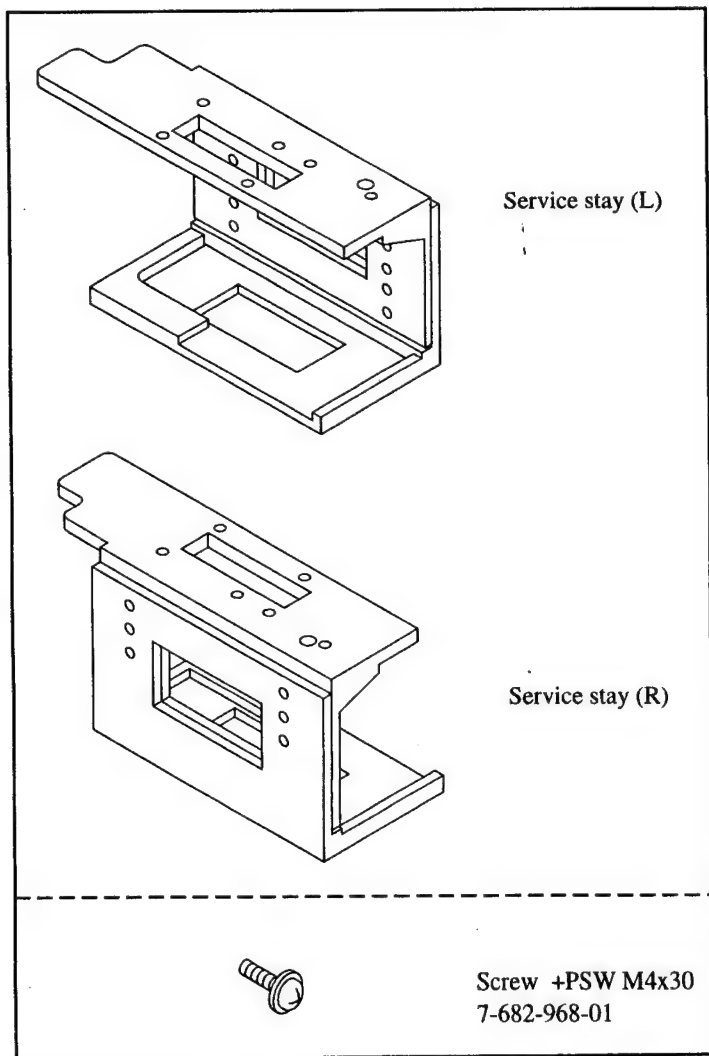


2-1-12. PICTURE TUBE REMOVAL



2-2.SERVICE STAY ASSY HOW TO USE AND CARRY BACK SERVICE STAY ASSY

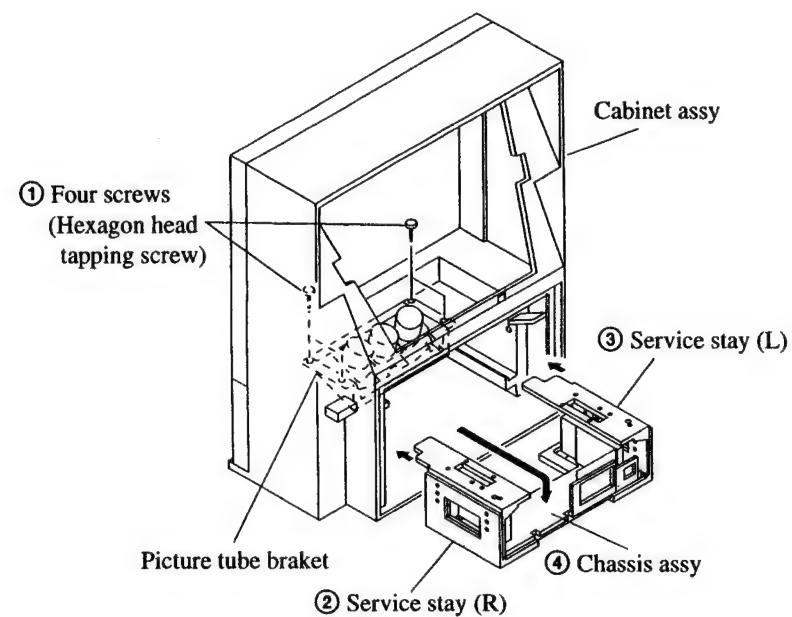
2-2-1.SERVICE STAY ASSY (X-4034-033-1)



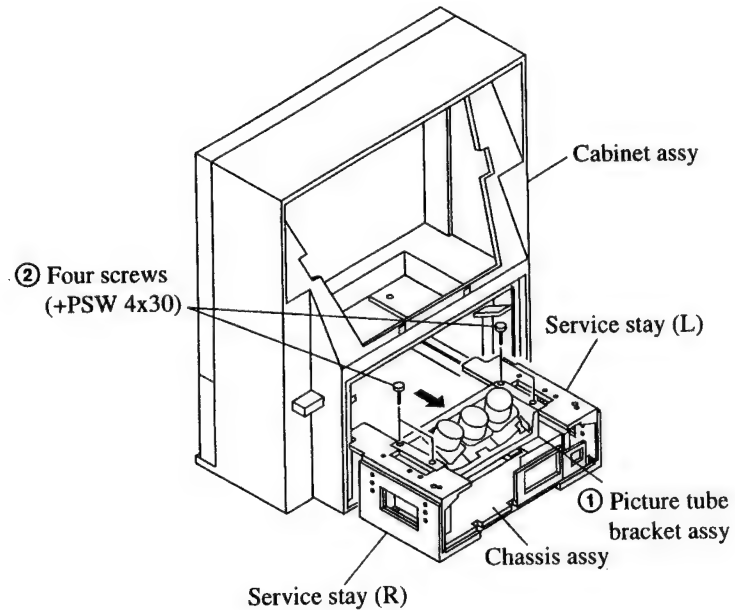
● PREPARATION

- 1) Remove the rear board and chassis assy while referring to the instructions.
- 2) Remove the control panel assy while referring to the instructions.
- 3) Remove the mirror cover while referring to the instructions.
- 4) Remove the harnesses from the purse lock.
- 5) Remove the connector from the speaker. (U board : CN2004, CN2008)

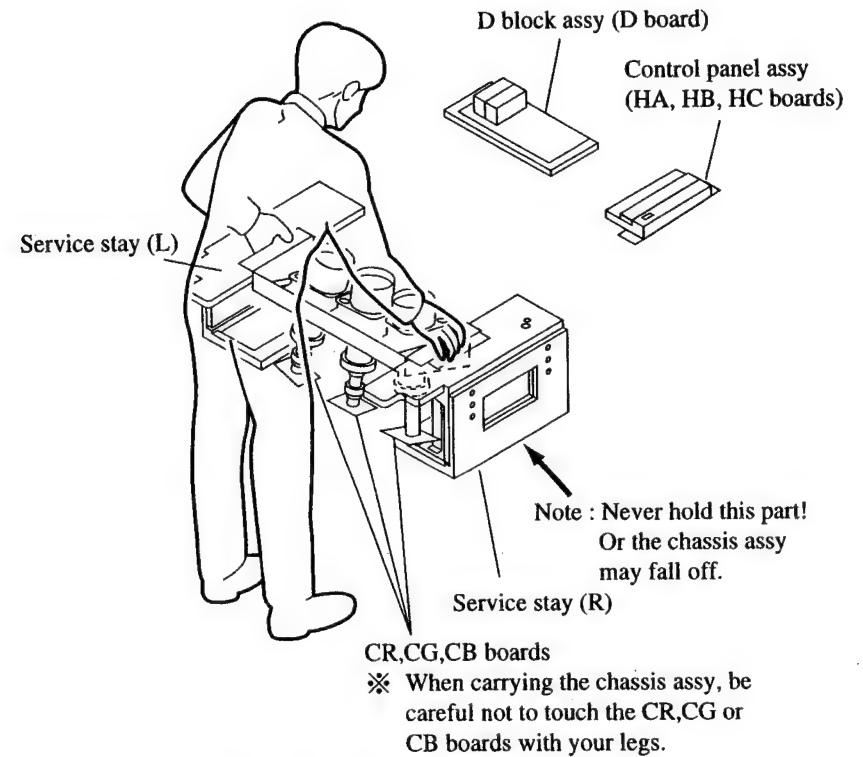
2-2-2. PICTURE TUBE BRACKET ASSY REMOVAL AND INSTALL A CHASSIS ASSY



2-2-3. INSTALL A PICTURE TUBE BRACKET ASSY.

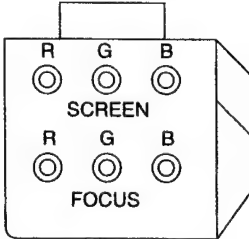
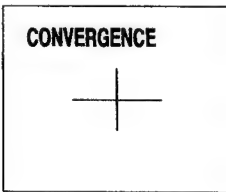
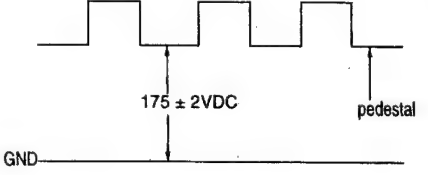


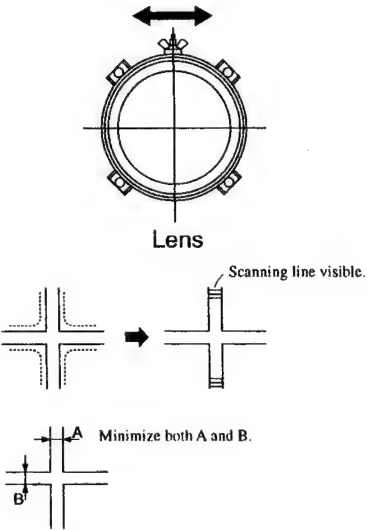
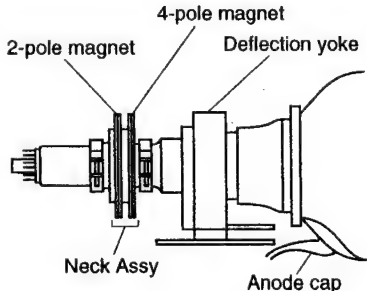
2-2-4. CARRY BACK SERVICE STAY ASSY

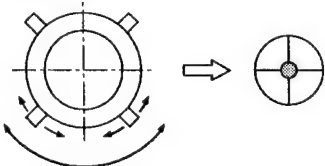
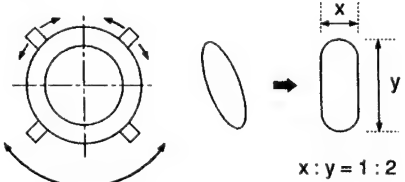
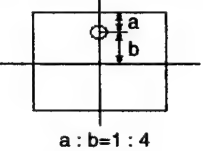
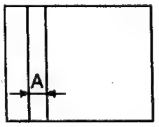


- ※ Even with 2 servicemen, be sure to put your hands in to the grooves on the top of service stays (L) and (R) to carry the chassis assy.
- ※ To hold the chassis assy, put your hands into the grooves on the top of service stays (L) and (R).

SECTION 3 SET-UP ADJUSTMENTS

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<p>SCREEN VOLTAGE ADJUSTMENT (ROUGH ALIGNMENT)</p> <ol style="list-style-type: none"> 1. Turn the red VR on the FOCUS block all the way to the left and then gradually turn it to the right until the point where you can see the retrace line. 2. Next gradually turn it to the left to the position where the retrace line disappears. <p>FOCUS LENS ADJUSTMENT</p> <ol style="list-style-type: none"> 1. Loose the lens screw. 2. Set in service mode. 3. Use VSP on the service mode menu to shown only the green color. 4. Press the Commander Menu button and select FEATURES and CONVERGENCE to display the test signal on the screen. 5. Rotate the green lens and align with the optimal focus point from the test signal. 6. Use RRH from the service mode menu to set to green and red. 7. Output the test signal and rotate the red lens to obtain the optimum focus at the point where the red and green spots overlap. 8. Use RBH from the service mode menu to set to red and blue. 9. Output the test signal and rotate the blue lens to obtain the optimum focus at the point where the blue and red spots overlap. 10. Tighten the lens screw. <p>SCREEN (G2) ADJUSTMENT</p> <ol style="list-style-type: none"> 1. Select VIDEO mode without signals. 2. Connect an oscilloscope to the TP701(KR), TP731(KG) and TP761(KB) of CR board, CG board and CB board. 3. Adjust R, G and B screen voltage to $175 \pm 2\text{VDC}$ with screen VR on the focusblock. 	Monoscope Pattern		<p>PICTURE minimum BRIGHTNESS 50% SCREEN (G2)</p>	 <p style="text-align: center;">FOCUS block</p>  <p style="text-align: center;">CONVERGENCE</p> 

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<p>FOCUS VR ADJUSTMENT</p> <ol style="list-style-type: none"> 1. Set in service mode. 2. Use VSP on the service mode menu to shown only the green color. 3. Press the Commander Menu button (convergence) and output the test signal. 4. Rotate the green VR on the FOCUS block and align to obtain the optimal focus point. 5. Use RRH from the service mode menu to set to green and red. 6. Output the test signal and rotate the red VR to obtain the optimum focus at the point where the red and green spots overlap. 7. Use RBH from the service mode menu to set to red and blue. 8. Output the test signal and rotate the blue VR aligning to obtain the optimum focus at the point where the blue and green spots overlap. 				
<p>DEFLECTION YOKE TILT ADJUSTMENT</p> <ol style="list-style-type: none"> 1. Set in service mode. 2. Set to receive the monoscope signal. 3. Use VSP on the service mode menu to shown only the green color. 4. Loosen the deflection yoke setscrew and align the tilt of the Deflection Yoke so that the bars at the center of the monoscope pattern are horizontal. 5. After aligning the deflection yoke, fasten it securely to the funnel-shaped portion (neck) of the CRT. 6. The tilt of the deflection yoke for red is aligned with RRH on the service mode menu, and the tilt on the deflection yoke for green is aligned with RBH on the service menu, is aligned the same as was done for green. 	<p>Monoscope pattern</p>			

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
2-POLE MAGNET ADJUSTMENT <ol style="list-style-type: none"> 1. Set in service mode. 2. Set to receive the dot pattern signal. 3. Place the caps on the red and blue lens so that only the green color is shown. 4. Turn the green VR on the focus block to the right and set to overfocus to enlarge the spot. 5. Now align the 2-Pole Magnet so that the enlarged spot is in the center of the Just Focus spot. 6. Align the green focus VR and set for just (precise) focus. 7. Perform the same alignment for red and blue. 	Dot pattern		2-pole magnet	<p>Use the center dot</p> 
4-POLE MAGNET ADJUSTMENT <ol style="list-style-type: none"> 1. Set in service mode. 2. Set to receive the dot pattern signal. 3. Place the caps on the red and blue lens so that only the green color is shown. 4. Turn the green VR on the focus block to the left and set to underfocus to enlarge the spot. 5. Now align the 4-Pole Magnet so that the enlarged spot becomes a perfect circle. 	Dot pattern		4-pole magnet	<p>Use the center dot</p>  <p>$x : y = 1 : 2$</p>
DEFOCUS ADJUSTMENT <ol style="list-style-type: none"> 1. Receive the crosshatch signal. 2. Adjust the FOCUS knob so that the crosshatch pattern vertical line width is as in the figure on the right. 	Crosshatch pattern		FOCUS VR • RED • GREEN • BLUE	<p>• Focus adjustment point</p>  <p>$a : b = 1 : 4$</p>  <p>without flare</p>

ELECTRICAL ADJUSTMENT BY REMOTE COMMANDER

Use of Remote Commander (RM-901) can be performed circuit adjustments about this model.

NOTE : Test Equipment Required.

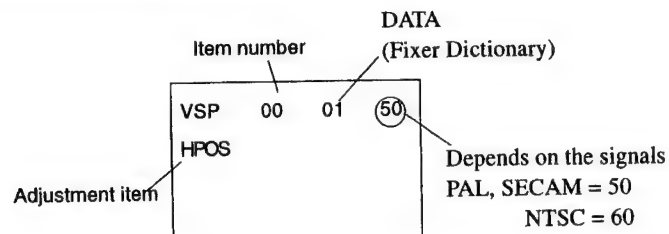
1. Pattern Generator
2. Frequency counter
3. Digital multimeter
4. Audio oscillator

1. METHOD OF SETTING THE SERVICE ADJUSTMENT MODE

SERVICE MODE PROCEDURE

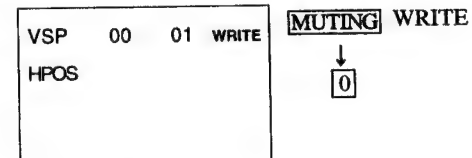
1. Standby mode. (Power off)
2. **DISPLAY** → **5** → **VOL (+)** → **POWER** on the Remote Commander.
(Press each button within a second.)

SERVICE ADJUSTMENT MODE IN



3. The CRT displays the item Being adjusted.
4. Press **1** or **4** on the Remote Commander to select the item.
5. Press **3** or **6** on the Remote Commander to change the data.
6. If you want to recover the latest values press **7** then **0** to read the memory.
7. Press **5** then **0** to write initial data into memory.
8. Press **MUTING** then **0** to write into memory.

SERVICE ADJUSTMENT MODE MEMORY

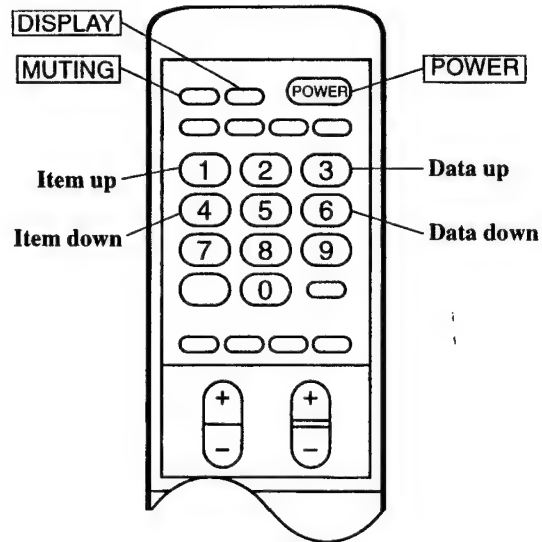


9. Press **8** then **0** on the Remote Commander to initialize.
(Be sure not to use usually)
10. Turn set off and on to exit.

2. MEMORY WRITE CONFIRMATION METHOD

1. After adjustment, pull out the plug from AC outlet, and next place, plug in AC outlet again.
2. Turn the power switch ON and set to Service Mode.
3. Call the adjusted items again, confirm they were adjusted.

3. ADJUST BUTTONS AND INDICATOR



RM-901

4. SERVICE MODE LIST

VSP

	Item number	Adjustment item	Data range	Standard data	Initial data	Note	Device
VSP	00	HPOS	0 ~ 63	28	28	H-SHIFT	CXD2018Q
	01	VSIZ	0 ~ 63	00	15	V-SIZE	
	02	VPOS	0 ~ 63	35	35	V-SHIFT	
	03	VSCO	0 ~ 15	07	07	S-CORRECTION	
	04	VLIN	0 ~ 15	08	08	V-LINEARITY	
	05	HSIZ	0 ~ 63	20	28	H-SIZE	
	06	HIPN	0 ~ 63	38	36	PIN-AMP	
	07	HKEY	0 ~ 31	15	15	TILT	
	08	UPCP	0 ~ 15	07	07	UPPER CORNER PIN	
	09	LOCP	0 ~ 15	06	06	LOWER CORNER PIN	
	10	HBOW	0 ~ 15	09	09	V-BOW	
	11	HSKE	0 ~ 15	08	08	V-ANGLE	

DP

	Item number	Adjustment item	Data range	Standard data	Initial data	Note	Device
R GH	00	CENT	-127 ~ +128	07	00	GREEN. H CENTER	CXP85112B-613S
	01	SKEW	-127 ~ +128	00	00	GREEN. H SKEW	
	02	BOW	-127 ~ +128	-01	-01	GREEN. H BOW	
	03	4BOW	-127 ~ +128	00	00	GREEN. H 4th BOW	
	04	SIZE	-127 ~ +128	09	00	GREEN. H SIZE	
	05	LIN	-127 ~ +128	06	-20	GREEN. H LINEARITY	
	06	MSIZ	-127 ~ +128	16	16	GREEN. H MIDDLE SIZE	
	07	MLIN	-127 ~ +128	06	06	GREEN. H MIDDLE LINEARITY	
	08	KEY	-127 ~ +128	00	00	GREEN. H KEY	
	09	SSKW	-127 ~ +128	14	14	GREEN. H SUB SKEW	
	10	MPIN	-127 ~ +128	-04	47	GREEN. H MIDDLE PIN	
	11	PIN	-127 ~ +128	47	02	GREEN. H PIN	
	12	SBOW	-127 ~ +128	-16	-16	GREEN. H SUB BOW	
	13	MBOW	-127 ~ +128	04	04	GREEN. H MIDDLE BOW	
	14	4PIN	-127 ~ +128	-11	-03	GREEN. H 4th PIN	
	15	4SBOW	-127 ~ +128	00	00	GREEN. H 4th SUB BOW	
R GV	00	CENT	-127 ~ +128	00	00	GREEN. V CENTER	CXP85112B-613S
	01	SKEW	-127 ~ +128	00	00	GREEN. V SKEW	
	02	BOW	-127 ~ +128	16	16	GREEN. V BOW	
	03	SIZE	-127 ~ +128	-30	-06	GREEN. V SIZE	
	04	LIN	-127 ~ +128	22	22	GREEN. V LINEARITY	
	05	MSIZ	-127 ~ +128	-05	-05	GREEN. V MIDDLE SIZE	
	06	MKEY	-127 ~ +128	-05	-05	GREEN. V MIDDLE KEY	
	07	KEY	-127 ~ +128	-18	-18	GREEN. V KEY	
	08	SSKW	-127 ~ +128	01	01	GREEN. V SUB SKEW	
	09	MPIN	-127 ~ +128	-04	-04	GREEN. V MIDDLE PIN	
	10	PIN	-127 ~ +128	42	42	GREEN. V PIN	
	11	SBOW	-127 ~ +128	08	08	GREEN. V SUB BOW	
	12	WAVE	-127 ~ +128	-01	-01	GREEN. V WAVE	
	13	4PIN	-127 ~ +128	07	07	GREEN. V 4th PIN	
R RH	00	CENT	-127 ~ +128	-40	-04	RED. H CENTER	CXP85112B-613S
	01	SKEW	-127 ~ +128	00	00	RED. H SKEW	
	02	BOW	-127 ~ +128	06	06	RED. H BOW	
	03	4BOW	-127 ~ +128	-01	-01	RED. H 4th BOW	
	04	SIZE	-127 ~ +128	10	-02	RED. H SIZE	
	05	LIN	-127 ~ +128	31	16	RED. H LINEARITY	
	06	MSIZ	-127 ~ +128	12	12	RED. H MIDDLE SIZE	
	07	MLIN	-127 ~ +128	-09	-09	RED. H MIDDLE LINEARITY	
	08	KEY	-127 ~ +128	-08	-08	RED. H KEY	
	09	SSKW	-127 ~ +128	04	04	RED. H SUB SKEW	
	10	MPIN	-127 ~ +128	54	54	RED. H MIDDLE PIN	
	11	PIN	-127 ~ +128	-01	-01	RED. H PIN	

	Item number	Adjustment item	Data range	Standard data	Initial data	Note	Device
R RH	12	SBOW	-127 ~ +128	07	07	RED. H SUB BOW	
	13	MBOW	-127 ~ +128	21	21	RED. H MID BOW	
	14	4PIN	-127 ~ +128	-10	00	RED. H 4th PIN	
	15	4SBOW	-127 ~ +128	-13	00	RED. H 4th SUB BOW	
R RV	00	CENT	-127 ~ +128	00	-43	RED. V CENTER	CXP85112B-613S
	01	SKEW	-127 ~ +128	00	00	RED. V SKEW	
	02	BOW	-127 ~ +128	17	17	RED. V BOW	
	03	SIZE	-127 ~ +128	70	00	RED. V SIZE	
	04	LIN	-127 ~ +128	24	24	RED. V LINEARITY	
	05	MSIZ	-127 ~ +128	-05	-05	RED. V MIDDLE SIZE	
	06	MKEY	-127 ~ +128	05	05	RED. V MIDDLE KEY	
	07	KEY	-127 ~ +128	05	05	RED. V KEY	
	08	SSKW	-127 ~ +128	01	01	RED. V SUB SKEW	
	09	MPIN	-127 ~ +128	-07	-07	RED. V MIDDLE PIN	
	10	PIN	-127 ~ +128	09	09	RED. V PIN	
	11	SBOW	-127 ~ +128	10	10	RED. V SUB BOW	
	12	WAVE	-127 ~ +128	29	29	RED. V WAVE	
	13	4PIN	-127 ~ +128	10	10	RED. V 4th PIN	
R BH	00	BSEL	0 / 1	01	00	RESISTRATION μ CON BSEL	CXP85112B-613S
	01	CENT	-127 ~ +128	-25	-08	BLUE. H CENTER	
	02	SKEW	-127 ~ +128	00	00	BLUE. H SKEW	
	03	BOW	-127 ~ +128	-01	-01	BLUE. H BOW	
	04	4BOW	-127 ~ +128	-03	-03	BLUE. H 4th BOW	
	05	SIZE	-127 ~ +128	-21	-21	BLUE. H SIZE	
	06	LIN	-127 ~ +128	-64	-64	BLUE. H LINEARITY	
	07	MSIZ	-127 ~ +128	22	22	BLUE. H MID SIZE	
	08	MLIN	-127 ~ +128	55	55	BLUE. H MID LINEARITY	
	09	KEY	-127 ~ +128	-08	-08	BLUE. H KEYSTONE	
	10	SSKW	-127 ~ +128	24	24	BLUE. H SUB SKEW	
	11	MPIN	-127 ~ +128	34	34	BLUE. H MID PIN	
	12	PIN	-127 ~ +128	10	10	BLUE. H PIN	
	13	SBOW	-127 ~ +128	-34	-34	BLUE. H SUB BOW	
	14	MBOW	-127 ~ +128	-12	-12	BLUE. H MID BOW	
	15	4PIN	-127 ~ +128	-10	-01	BLUE. H 4th PIN	
	16	4SBOW	-127 ~ +128	05	05	BLUE. H 4th SUB BOW	
R BV	00	CENT	-127 ~ +128	00	-17	BLUE. V CENTER	CXP85112B-613S
	01	SKEW	-127 ~ +128	00	00	BLUE. V SKEW	
	02	BOW	-127 ~ +128	13	13	BLUE. V BOW	
	03	SIZE	-127 ~ +128	45	-38	BLUE. V SIZE	
	04	LIN	-127 ~ +128	20	20	BLUE. V LINEARITY	
	05	MSIZ	-127 ~ +128	-07	-07	BLUE. V MIDDLE SIZE	
	06	MKEY	-127 ~ +128	-21	-21	BLUE. V MIDDLE KEY	

	Item number	Adjustment item	Data range	Standard data	Initial data	Note	Device
R BV	07	KEY	-127 ~ +128	67	67	BLUE. V KEY	CXP85112B-613S
	08	SSKW	-127 ~ +128	04	04	BLUE. V SUB SKEW	
	09	MPIN	-127 ~ +128	-07	-07	BLUE. V MIDDLE PIN	
	10	PIN	-127 ~ +128	-29	-29	BLUE. V PIN	
	11	SBOW	-127 ~ +128	10	10	BLUE. V SUB BOW	
	12	WAVE	-127 ~ +128	-40	-40	BLUE. V WAVE	
	13	4PIN	-127 ~ +128	15	15	BLUE. V 4th PIN	

MCD

	Item number	Adjustment item	Data range	Standard data	Initial data	Note	Device
MCD	00	MHUE	0 ~ 31	17	13	SUB HUE OF MAIN PICTURE	TDA9141

SCD

	Item number	Adjustment item	Data range	Standard data	Initial data	Note	Device
SCD	01	YDLY	0 ~ 15	01	01	Y DELAY	TDA9143

RGB

	Item number	Adjustment item	Data range	Standard data	Initial data	Note	Device
RGB	00	SHUE	0 ~ 31	28	16	SUB HUE OF SUB PICTURE	TDA4780
	01	SCOL	0 ~ 15	10	11	SUB COLOR	
	02	SBRT	0 ~ 63	21	10	SUB BRIGHTNESS	
	03	RAMP	0 ~ 63	31	31	RED GAIN	
	04	GAMP	0 ~ 63	31	31	GREEN GAIN	
	05	BAMP	0 ~ 63	31	48	BLUE GAIN	
	06	RCUT	0 ~ 63	31	31	RED LEVEL REFERENCE	
	07	GCUT	0 ~ 63	45	31	GREEN LEVEL REFERENCE	
	08	BCUT	0 ~ 63	31	48	BLUE LEVEL REFERENCE	
	09	PDL	0 ~ 63	30	20	PEAK DRIVE LIMIT	
	10	GNMA	0 ~ 63	40	40	GAMMA	
	11	ADBL	0 / 1	00	00	ADAPTIVE BLACK	
	12	RELC	0 / 1	01	01	RELATIVE TO CUT-OFF	
	13	TCPL	0 / 1	01	01	TIME CONSTANT PEAK DRIVE LIMITER	

PIP

	Item number	Adjustment item	Data range	Standard data	Initial data	Note	Device
PIP	00	AXIS	0 / 1	01	01	RGB AXIS	SDA9188-3X
	01	RDV	0 ~ 15	08	08	V READ DELAY	
	02	RDH	0 ~ 63	16	16	H READ DELAY	
	03	FRY	0 ~ 15	04	04	BRIGHTNESS OF THE BORDER FRAME	
	04	9V50	0 ~ 7	03	03	MULTI P IN P V 50Hz	
	05	9H50	0 ~ 7	03	03	MULTI P IN P H 50Hz	
	06	9V60	0 ~ 7	03	03	MULTI P IN P V 60Hz	
	07	9H60	0 ~ 7	03	03	MULTI P IN P H 60Hz	

TXT

	Item number	Adjustment item	Data range	Standard data	Initial data	Note	Device
TXT	00	BOXP	0 ~ 15	00	00		TPU3040
	01	TXH	0 ~ 255	05	05	H START POSITION	
	02	TXV	0 ~ 63	44	44	V START POSITION	
	03	VSP	0 ~ 255	59	59	V STOP POSITION	
	04	BSP	0 ~ 255	61	61	BLANKING STOP	
	05	BST	0 ~ 255	53	53	BLANKING START	
	06	QSF	0 ~ 31	01	01	ACQUISITION SOFT SLICER	
	07	A7F	0 ~ 255	10	10	VALUE OF ADDRESS 007FH	
	08	QDT	0 ~ 63	13	13	ACQUISITION DATA SLICER	
	09	CST	0 ~ 255	00	00	CLAMPING START	
	10	CSP	0 ~ 255	80	80	CLAMPING STOP	
	11	LMT	0 / 1	00	00	LIMIT SLICER ADAPTION SWITCH	
	12	GMX	0 ~ 255	31	31	GAIN MAX	
	13	FMX	0 ~ 255	32	31	FILTER MAX	

AP

	Item number	Adjustment item	Data range	Standard data	Initial data	Note	Device
AP	00	TVER	0 ~ 3	03	03	TPU VERSION (TC20=3)	MSP3410
	01	FAW	0 ~ 255	10	10	NICAM FAW THRESHOLD	
	02	CTM	0 ~ 255	08	08	NICAM ERROR BIT THRESHOLD (MONO->NICAM)	
	03	CTN	0 ~ 255	80	80	NICAM ERROR BIT THRESHOLD (NICAM->MONO)	
	04	WGO	0 ~ 255	10	10	WEST GERMAN STEREO LOW THRESHOLD	
	05	WGS	0 ~ 255	21	21	WEST GERMAN STEREO HIGH THRESHOLD	
	06	WGT	0 ~ 255	80	80	WEST GERMAN STEREO LOW 2 THRESHOLD	
	07	WGB	0 ~ 255	234	234	WEST GERMAN STEREO HIGH 2 THRESH	
	08	ACG	0 / 1	01	01	AGC AUTO / CONSTANT SWITCH	
	09	CDB	0 ~ 63	40	40	AGC GAIN VALUE AT CONSTANT MODE	
	10	FMP	0 ~ 127	34	34	FM MONO PRESCALE	
	11	WGP	0 ~ 127	60	60	WEST GERMAN STEREO PRESCALE	
	12	INIP	0 ~ 127	127	127	1 NICAM PRESCALE	
	13	CRM	0 / 1	00	00	CARRIER MUTE FUNCTION	
	14	ACO	0 / 1	01	01	AUDIO CLOCK OUT OFF/ON	

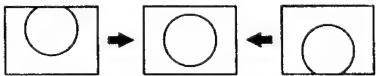

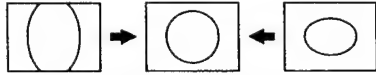

CPU

	Item number	Adjustment item	Data range	Standard data	Initial data	Note	Device
CPU	00	WAC	0 ~ 15	01	01	WEST GERMAN STEREO JUDGE CONSTANT	CXP5400
	01	OSH	0 ~ 63	11	13	OSD H POSITION	
	02	ODL	0 ~ 256	15	15	POWER ON DELAY	
	03	WIDE	0 / 1	00	00	RELAY FOR WIDE MODEL	
	04	TWIN	0 / 1	00	00	0 : 4 : 3 1 : 16 : 9	
						0 : Sub V FIELD PROCESSING	
	05	DSPC	0 / 1	01	01	1 : Sub V FRAM PROCESSING	
						0 : ENABLE RECEIVE OF CHANNEL	
						IDENTICAL TO TWIN PICTURE	
						1 : DISABLE RECEIVE OF CHANNEL	
						IDENTICAL TO TWIN PICTURE	
						IDENTICAL TO TWIN PICTURE	
	06	SFTE	0 / 1	*00	01	SIFT ENABLE	
	07	SFTF	0 / 1	00	00	SIFT CHECK FACTORY	
	08	3 BCN	0 ~ 255	10	10		

* After registration adjustment is completed, set the initial value to "01".

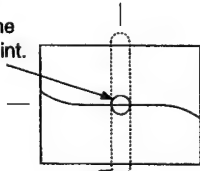




01 : As a countermeasure against CRT image burnout, picture slightly shifts left and right (every 2 hours).

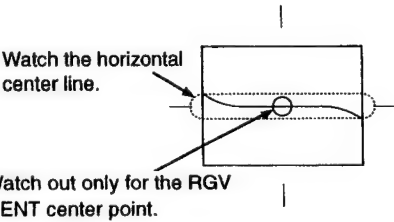

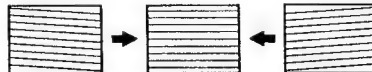
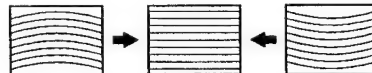
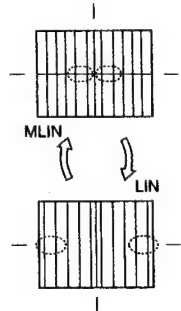
00 : No shift of picture (adjustment mode)

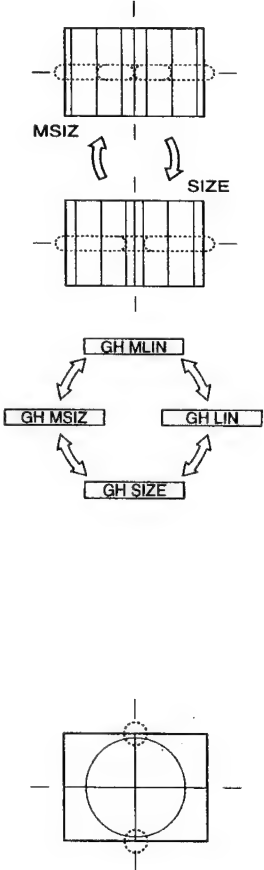
ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<p>CONVERGENCE ADJUSTMENT</p> <p>● When replacing the deflection yoke, always perform "DEFLECTION YOKE TILT ADJUSTMENT" before adjusting the convergence.</p> <p>Adjustment procedure</p> <pre> graph TD A[VSP MAIN] --> B[R GH (SUB), R GV (SUB)] B --> C[R RH (SUB), R RV (SUB)] C --> D[R BH (SUB), R BV (SUB)] </pre> <p>• GREEN REGISTRATION ADJUSTMENT</p> <ul style="list-style-type: none"> • V-SHIFT adjustment • V-LINEARITY adjustment • V-SIZE, V-CORRECTION adjustment While tracking, adjust so that the lattice intervals for VSIZ and VSCO are equal. 	Monoscope pattern or Crosshatch pattern		<p><VSP MENU> VSP VPOS</p> <p>VSP VLIN</p> <p>VSP VSIZ VSP VSCO</p>	<p>VPOS</p>  <p>VLIN</p>  <p>VSIZ</p>  <p>VSCO</p> 

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<ul style="list-style-type: none"> • H-SHIFT adjustment 			VSP HPOS	<p>HPOS</p>
<ul style="list-style-type: none"> • H-SIZE adjustment Finely adjust with SUB MSIZE. 			VSP HSIZ	<p>HSIZ</p>
<ul style="list-style-type: none"> • PIN-AMP adjustment Finely adjust with SUB MPIN. 			VSP HPIN	<p>HPIN</p>
<ul style="list-style-type: none"> • UPPER/LOWER-CORNER PIN adjustment Correct the screen top and bottom section line bow. However, if this adjustment is overdone, distortion may occur with the PIN-AMP adjustment that can not be adjusted away. 			VSP UPCP VSP LOCP	<p>UPCP</p> <p>LOCP</p>
<ul style="list-style-type: none"> • V-ANGLE, V-BOW adjustment Correct the tilt and bow of the vertical line at the center of the screen. 			VSP HSKE VSP HBOW	<p>HSKE</p> <p>HBOW</p>
<ul style="list-style-type: none"> • TILT adjustment Adjust to eliminate the tilt of one of the two vertical lines at both ends of the screen. 			VSP HKEY	<p>HKEY</p>

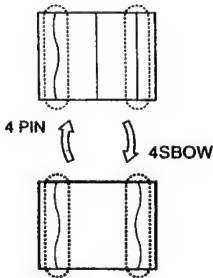
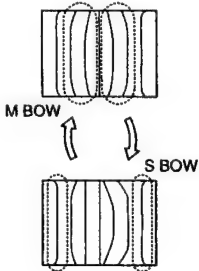
ADJUSTMENT ITEM AND PROCEDURE								EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
CONVERGENCE SUB ADJUSTMENT Adjustment O : Yes - : No											
Display	Adjustment item	Adjustment type									
		RGH	RGV	RRH	RRV	RBH	RBV				
BSEL	COL SELECT	-	-	-	-	O	-				
CENT	CENT	O	O	O	O	O	O				
SKEW	SKEW	O	O	O	O	O	O				
BOW	BOW	O	O	O	O	O	O				
4BOW	4TH BOW	O	-	O	-	O	-				
SIZE	SIZE	O	O	O	O	O	O				
LIN	LIN	O	O	O	O	O	O				
MSIZ	MID SIZE	O	O	O	O	O	O				
MLIN	MID LIN	O	O	O	-	O	-				
MKEY	MID KEY	-	O	-	O	-	O				
KEY	KEY	O	O	O	O	O	O				
SSKW	SUB SKEW	O	O	O	O	O	O				
MPIN	MID PIN	O	O	O	O	O	O				
PIN	PIN	O	O	O	O	O	O				
SBOW	SUB BOW	O	O	O	O	O	O				
WAVE	WAVE	-	O	-	O	-	O				
MBOW	MID BOW	O	-	O	-	O	-				
4PIN	4TH PIN	O	O	O	O	O	O				
4SBOW	4TH SUB BOW	O	-	O	-	O	-				

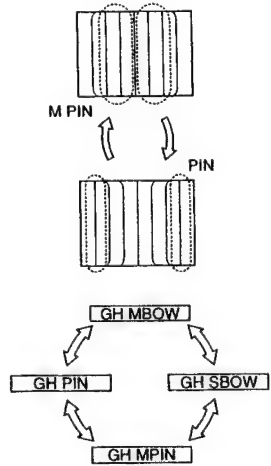
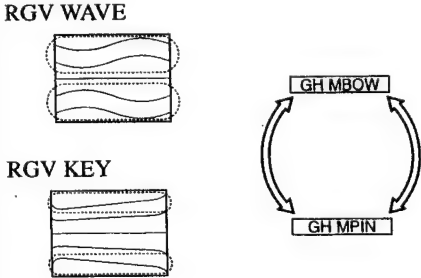
ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<p>• GREEN SUB ADJUSTMENT</p> <p>SCREEN CENTER SECTION GREEN VERTICAL LINE</p> <p>ADJUSTMENT</p> <p>1. Finely adjust with RGH CENT, RGH BOW, RGH SKEW. Adjust watching out for the RGH CENT screen center section.</p>			<p><RGH MENU> RGH CENT RGH BOW RGH SKEW</p>	<p>Watch out only for the GH CENT center point.</p>  <p>Watch the vertical center line.</p> <p>RGH CENT</p>  <p>RGH BOW</p>  <p>RGH SKEW</p>  <p>RGH 4BOW</p> 
<p>2. RGH 4TH BOW adjustment Correct the corner distortion that could not be adjusted away with the RGH BOW adjustment.</p>			RGH 4BOW	

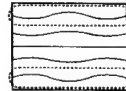

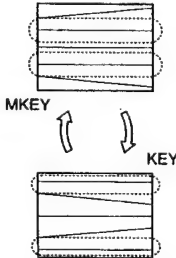
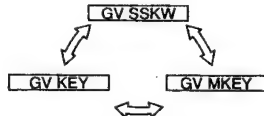
ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<p>SCREEN CENTER SECTION GREEN HORIZONTAL LINE ADJUSTMENT</p> <ol style="list-style-type: none"> 1. Finely adjust the center position of the vertical line at the center of the screen with RGV CENT. 2. Correct the tilt and bow of the horizontal line at the center of the screen with RGV SKEW and RGV BOW. <p>GREEN SIZE AND LINEARITY ADJUSTMENT</p> <ol style="list-style-type: none"> 1. Balance the sizes at both sides of the center section of the screen with RGH MLIN. 2. Balance the sizes on both end sections of the screen with RGH LIN. 3. While tracking, adjust with RGH MLIN and RGH LIN so that the sizes of the horizontal line at the center of the screen are symmetrical left and right. 			<p><RGV MENU></p> <p>RGV CENT</p> <p>RGV SKEW RGV BOW</p> <p><RGH MENU></p> <p>RGH MLIN RGH LIN</p>	 <p>RGV CENT</p>  <p>RGV SKEW</p>  <p>RGV BOW</p>  

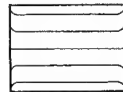
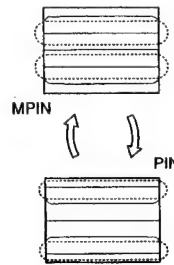
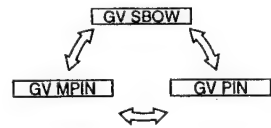
ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<p>GREEN HORIZONTAL SIZE ADJUSTMENT</p> <ol style="list-style-type: none"> 1. Adjust with RGH MSIZE so that the sizes of both edges and of both sides of the center section of the screen are equal. 2. Adjust with RGH SIZE so that the horizontal sizes of both edges and of both sides of the center section of the screen are equal. 3. While tracking, adjust with RGH MSIZ and RGH SIZE so that the lattice intervals for the horizontal line section of the center section of the screen are equal and so that the horizontal size is the prescribed value. 4. If M LIN is changed when the RGH MSIZ and RGH SIZE adjustment is complete, adjust again while tracking. <p>● With just the H SIZE adjustment in MAIN, if there is no need to adjust RGH SIZE in SUB this can save power.</p> <p>GREEN VERTICAL LINEARITY ADJUSTMENT</p> <ol style="list-style-type: none"> 1. Adjust RGV LIN so that the vertical lines at the top and bottom of the screen are symmetrical. 			<p><RGH MENU> RGH MSIZ RGH SIZE</p> <p><RGV MENU> RGV LIN</p>	 <p>The illustration contains two sets of diagrams. The top set, for horizontal size adjustment, shows two rectangular screens. The first screen has vertical lines and is labeled 'MSIZ' on the left and 'SIZE' on the right, with arrows indicating adjustment. The second screen is similar but with different line spacing. Below these is a circular flow diagram with four boxes: 'GH MLIN' at the top, 'GH LIN' on the right, 'GH SIZE' at the bottom, and 'GH MSIZ' on the left, connected by curved arrows in a clockwise cycle. The bottom set of diagrams shows a square frame with a circle inside, representing vertical linearity, with horizontal and vertical center lines and small circles at the top and bottom intersections.</p>

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<p>GREEN VERTICAL SIZE ADJUSTMENT</p> <ol style="list-style-type: none"> 1. Adjust with RGV MSIZE so that the sizes for the top and bottom sections of the screen and for both sides of the center section of the screen are equal. 2. Set the vertical size to the prescribed value with RGV SIZE. 3. Adjust RGV MSIZ and RGV SIZE watching the vertical line at the center section of the screen. 4. While tracking, adjust with RGV MSIZ and RGV SIZE so that the lattice intervals for the vertical line section of the center section of the screen are equal and so that the vertical size is the regulation value. 5. If RGV LIN is out of place when the RGV MSIZ and RGV SIZE adjustment is complete, adjust again while tracking. <p>●If there is no need to adjust RGV SIZE in SUB with just the V SIZE adjustment in MAIN, this can save power.</p>			<p><RGV MENU> RGV MSIZ</p> <p>RGV SIZE</p>	
<p>GREEN HORIZONTAL TRAPEZOIDAL DISTORTION ADJUSTMENT</p> <ol style="list-style-type: none"> 1. Adjust with RGH SSKW so that the tilt of the vertical lines at both edges of the screen is symmetrical left and right. 2. Adjust with RGH KEY so that there is no tilt in the vertical lines at both edges of the screen. 3. If there is a tilt on either the left or right after the RGH KEY adjustment, adjust while tracking. 			<p><RGV MENU> RGH SSKW</p> <p>RGH KEY</p>	

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<p>GREEN HORIZONTAL QUATERNARY ADJUSTMENT</p> <ol style="list-style-type: none"> 1. Correct the quaternary distortion with RGH 4PIN. 2. While balancing, correct the quaternary distortion of both end sections of the screen with RGH 4SBOW. 3. While tracking, adjust with RGH 4PIN and RGH 4SBOW. 			<p><RGH MENU></p> <p>RGH 4PIN</p> <p>RGH 4SBOW</p>	
<p>GREEN HORIZONTAL ASYMMETRICAL PIN DISTORTION ADJUSTMENT</p> <ol style="list-style-type: none"> 1. Adjust with RGH MBOW so that the pin asymmetry at both sides of the center section of screen is symmetrical. 2. Adjust with RGH SBOW so that the bow at both end sections of the screen is symmetrical left and right. 3. While tracking, adjust with RGH MBOW and RGH SBOW so that the bow of vertical lines on the entire screen is symmetrical left and right. 			<p><RGH MENU></p> <p>RGH MBOW</p> <p>RGH SBOW</p>	

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
GREEN HORIZONTAL SYMMETRICAL PIN DISTORTION ADJUSTMENT <ol style="list-style-type: none"> 1. Adjust the pin distortion at both sides of the center section of the screen with RGH MPIN. 2. Adjust the pin distortion at both end sections of the screen with RGH PIN. 3. While tracking, adjust with RGH MPIN and RGH PIN so that the PIN of vertical lines on the entire screen have no bowing. 4. If there is asymmetrical pin distortion after the RGH MPIN and RGH PIN adjustments, adjust with RGH MBOW and RGH SBOW while tracking. <p>● With just the PIN AMP adjustment in MAIN, if there is no need to adjust RGV PIN in SUB, this can save power.</p>			<p><RGH MENU></p> <p>RGH MPIN</p> <p>RGH PIN</p> <p>RGH MBOW</p> <p>RGH SBOW</p>	
GREEN VERTICAL WAVE (TERTIARY DISTORTION) ADJUSTMENT <ol style="list-style-type: none"> 1. Take the screen top and bottom horizontal lines with RGV WAVE and find the secondary and quaternary waveform. 2. There is KEY distortion after the RGV WAVE adjustment, so adjust with GV WAVE and RGV KEY while tracking. 			<p><RGV MENU></p> <p>RGV WAVE</p> <p>RGV KEY</p>	

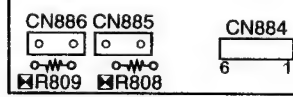
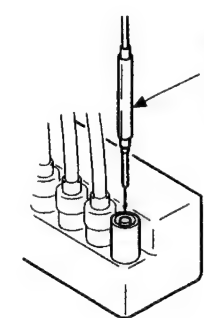
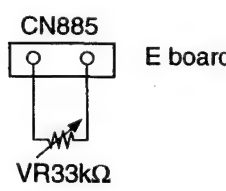
ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
GREEN VERTICAL QUATERNARY DISTORTION ADJUSTMENT 1. Correct the quaternary distortion of the horizontal lines at the top and bottom sections of the screen with RGV 4PIN. 1) Since there is no 4SBO for vertical correction, there will be a slight imbalance, but adjust to eliminate the distortion from the horizontal line at either the top or the bottom of the screen. 2) In many cases, the horizontal lines at the top and bottom sections of the screen are not straight lines after the adjustment. As long as the secondary distortion is mild enough that it can be corrected with the PIN adjustment, this is OK.			<RGV MENU> RGV 4PIN	RGV 4PIN 
GREEN VERTICAL TRAPEZOIDAL DISTORTION ADJUSTMENT 1. Adjust with RGV SSKW so that the tilt of the horizontal lines at the top and bottom sections of the screen is symmetrical about the center position horizontal line. 2. Adjust with RGV MKEY so that there is no tilt for the line sections at both sides of the horizontal lines at the center section of the stream. 3. Adjust with RGV KEY so that there is no tilt for the horizontal lines at the top and bottom sections of the screen. 4. While tracking, adjust with RGV MKEY and RGV KEY so that there is no tilt for the horizontal lines on the entire screen. 5. If the tilt is unbalanced after the RGV MKEY and RGV KEY adjustment, adjust again with RGV SSKW.			<RGV MENU> RGV SSKW RGV MKEY RGV KEY RGV SSKW	RGV SSKW   

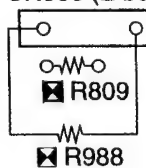

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
GREEN VERTICAL ASYMMETRICAL PIN DISTORTION (SECONDARY DISTORTION) ADJUSTMENT 1. Correct the asymmetrical pin distortion at the top and bottom sections of the screen with RGV SBOW.			<RGV MENU> RGV SBOW	RGV SBOW 
GREEN VERTICAL ASYMMETRICAL PIN DISTORTION ADJUSTMENT 1. Adjust the pin distortion for both side sections and the center of the screen with RGV MPIN. 2. Adjust with RGV PIN so that the horizontal lines at the top and bottom sections of the screen are straight lines. 3. Adjust with RGV MPIN and RGV PIN so that there is no curve in the horizontal lines on the entire screen.			<RGV MENU> RGV MPIN RGV PIN	
4. After the adjustments in Items 1-3, adjust the tracking with RGV SBOW, RGV MPIN, and RGV PIN.			RGV SBOW	



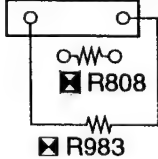
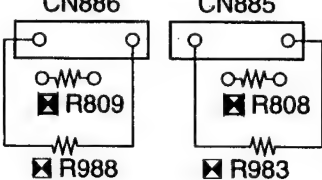
ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<p>GREEN AND RED REGISTRATION ADJUSTMENT (RRH, RRV)</p> <ol style="list-style-type: none"> 1. Receive a PAL cross-hatch signal. 2. Adjust so that the red lines lay on the green lines. Adjust with the same procedure as the GREEN SUB adjustment. <p>Notes: 1. The main correction is not carried out during red registration adjustment. 2. Beware. The green adjustment items can be changed by mistake. 3. Unlike for green, adjust within the range -127 ~ +128.</p>	PAL Cross-hatch pattern			
<p>GREEN AND BLUE REGISTRATION ADJUSTMENT (RBH, RBV)</p> <ol style="list-style-type: none"> 1. Receive a PAL cross-hatch signal. 2. Adjust so that the blue and green lines are on top of each other. <p>Notes : 1. The main correction is not carried out during RED registration adjustment. 2. Beware. The GREEN and RED adjustment items can be changed by mistake.</p>	PAL Cross-hatch pattern			

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<div>AGC ADJUSTMENT</div> <ol style="list-style-type: none"> 1. Receive an off-air signal. 2. Adjust the AGC VR (IF 1002) so that there is no snow noise and cross-modulation. 				
<div>WHITE BALANCE ADJUSTMENT</div> <ol style="list-style-type: none"> 1. Receive the monoscope pattern signal and adjust the picture quality with the menu. 2. Adjust service mode SBRT so that the signal 10 IRE section barely glows. 3. Receive the all-white pattern signal. 4. Adjust the white balance with service mode GCUT and BCUT. 5. Adjust service mode SBRT so that the signal 100 IRE section barely glows. 6. Adjust the white balance with service mode GAMP and BAMP. 7. Repeatedly adjust the white balance for the minimum and maximum picture settings. 	<p>Monoscope pattern</p> <p>All White pattern</p>		<p>PICTURE minimum < RGB MENU > SBRT GCUT BCUT</p> <p>PICTURE minimum GAMP BAMP PICTURE maximum</p>	

SECTION 4 SAFETY RELATED ADJUSTMENTS

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> HV HOLD DOWN CIRCUIT OPERATIONS CHECK AND ADJUSTMENT (☒ RESISTOR) </div> <p>When replacing the parts marked <input checked="" type="checkbox"/> on the right, check the HV hold down and adjust.</p> <p>1. Remove the cap for the unconnected pin in the high-voltage block and connect a Static Voltmeter.</p> <p>2. Input 240 VAC power.</p> <p>3. Receive the Dot signal and set the PICTURE and BRIGHTNESS settings to their minimums.</p> <p>4. Connect a 33 k variable resistor across the E board CN885 connector (with the variable resistor set to its maximum).</p>	<p>Static Voltmeter</p> <p>Dot pattern</p>	<p><input checked="" type="checkbox"/> marked parts C818, D804, D806, D809, D909, D912, Q915, R809, R855, R856, R857, R858, R883, R954, R955, R984, R988, R991, R995, R996, T801(FBT), T803 E board HV Block HV Block</p>	<p><input checked="" type="checkbox"/> R809, R988</p> <p>PICTURE minimum BRIGHTNESS minimum</p>	<p>E BOARD – COMPONENT SIDE –</p> <div style="border: 1px solid black; padding: 10px; margin-bottom: 20px;">  </div> <div style="text-align: center;">  <p>Remove the cap off from the unused terminal and connect a static voltmeter there.</p> </div> <div style="text-align: center;">  <p>VR33kΩ</p> </div>

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<p>5. Gradually lower the value of the variable resistor and check that the hold down circuit operates at a Static Voltmeter reading of 33.70 ± 0.80 kVDC and that the rasters disappear.</p> <p>6. If the hold down circuit operates and the rasters disappear at a Static Voltmeter reading of 34.0kVDC or higher, remove resistor R809 and mount a 16.0 k 1/4W RN at R988.</p> <p>If the hold down circuit operates and the rasters disappear at a Static Voltmeter reading of 32.0 kVDC or lower, remove resistor R809 and mount 6.2 k 1/4W RN at R988.</p> <p>7. Check Item 5 again.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> HV REGULATION CIRCUIT CHECK AND ADJUSTMENT (<input checked="" type="checkbox"/> RESISTOR) </div> <p>When replacing the parts marked <input checked="" type="checkbox"/> on the right, check the HV regulation and adjust.</p> <p>1. Remove the cap for the unconnected pin in the high-voltage block and connect a Static Voltmeter.</p> <p>2. Input 240 VAC power.</p> <p>3. Receive the Dot signal and set the PICTURE and BRIGHTNESS settings to their minimums.</p>	<p>Static Voltmeter</p> <p>Dot pattern</p>	<p><input checked="" type="checkbox"/> marked parts C918, C930, C934, C980, D920, Q909, R808, R851, R936, R939, R942, R944, R945, R946, R947, R950, R960, R965, R967, R971, R975, R976, R982, R983, R985, R998 E Board HV Block HV Block</p>	<p>R988</p> <p>R988</p> <p><input checked="" type="checkbox"/> R808, R983</p> <p>PICTURE minimum BRIGHTNESS minimum</p>	<p>33.70 \pm 0.80 kVDC</p> <p>34.0 kVDC or higher 16.0 k 1/4W</p> <p>32.0 kVDC or lower 6.2 k 1/4W</p> <div style="text-align: right;"> CN886 (E board)  </div> <p>E BOARD – COMPONENT SIDE –</p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;">  </div>

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<p>4. Check that the Static Voltmeter reading is 31.0 ± 0.5 kVDC.</p> <p>5. If the Static Voltmeter reading is 30.4 kVDC or lower, remove resistor R808 and mount 5.6 k 1/4W RN at R983.</p> <p>6. If the Static Voltmeter reading is 31.5 kVDC or higher, remove resistor R808 and mount 8.2 k 1/4W RN at R983.</p> <p>7. If the Static Voltmeter reading is 32.0 kVDC or higher, remove resistor R808 and mount 10.0 k 1/4W RN at R983.</p> <p>8. If any of Items 5, 6 or 7 has been implemented, check Item 4 again.</p> <div data-bbox="331 624 875 691" style="border: 1px solid black; padding: 5px;"> <p>HV HOLD DOWN AND HV REGULATOR SIMPLE ADJUSTMENT</p> </div> <p>It is normally desirable that the HV hold down and HV regulation checks use a Static-voltmeter. However, sometime one is not available, for example in the field, below is a simple adjustment method.</p> <p>When replacing parts with the  mark, replace both the resistors with the  mark R808 (R983) and R809 (R988) with resistors one rank lower in the E-12 series. Do not replace just one of these resistors. Always replace both with resistors one rank lower.</p>			<p>R983</p> <p>R983</p> <p>R983</p> <p>R808 (R983) R809 (R988)</p>	<p>31.0 \pm 0.5 kVDC 30.4 kVDC or lower 5.6 k 1/4W 31.5 kVDC or higher 8.2 k 1/4W 32.0 kVDC or higher 10.0 k 1/4W</p> <p>CN885 (E board)</p>  <p>E board</p> 

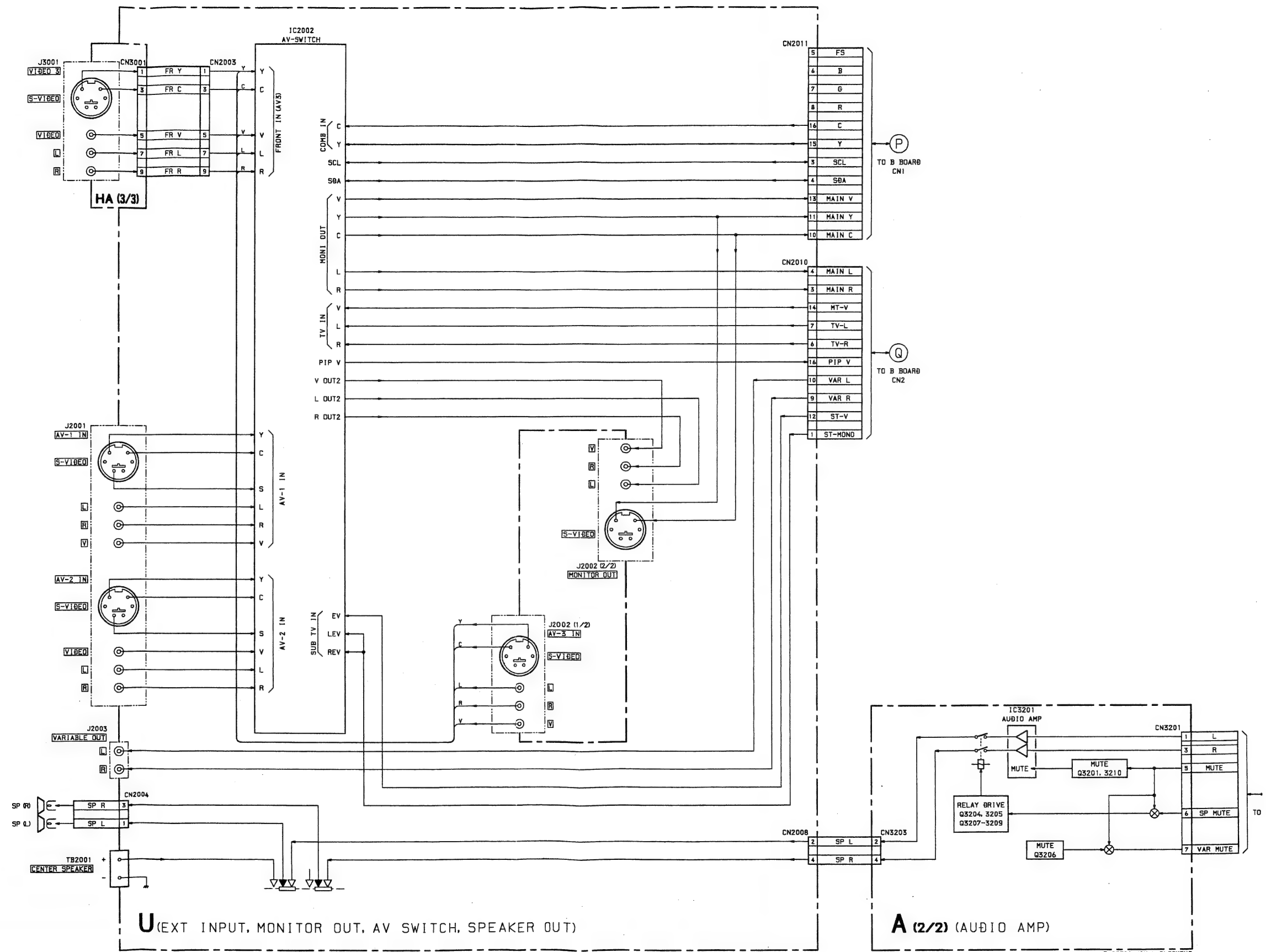
SECTION 5 ELECTRICAL ADJUSTMENTS

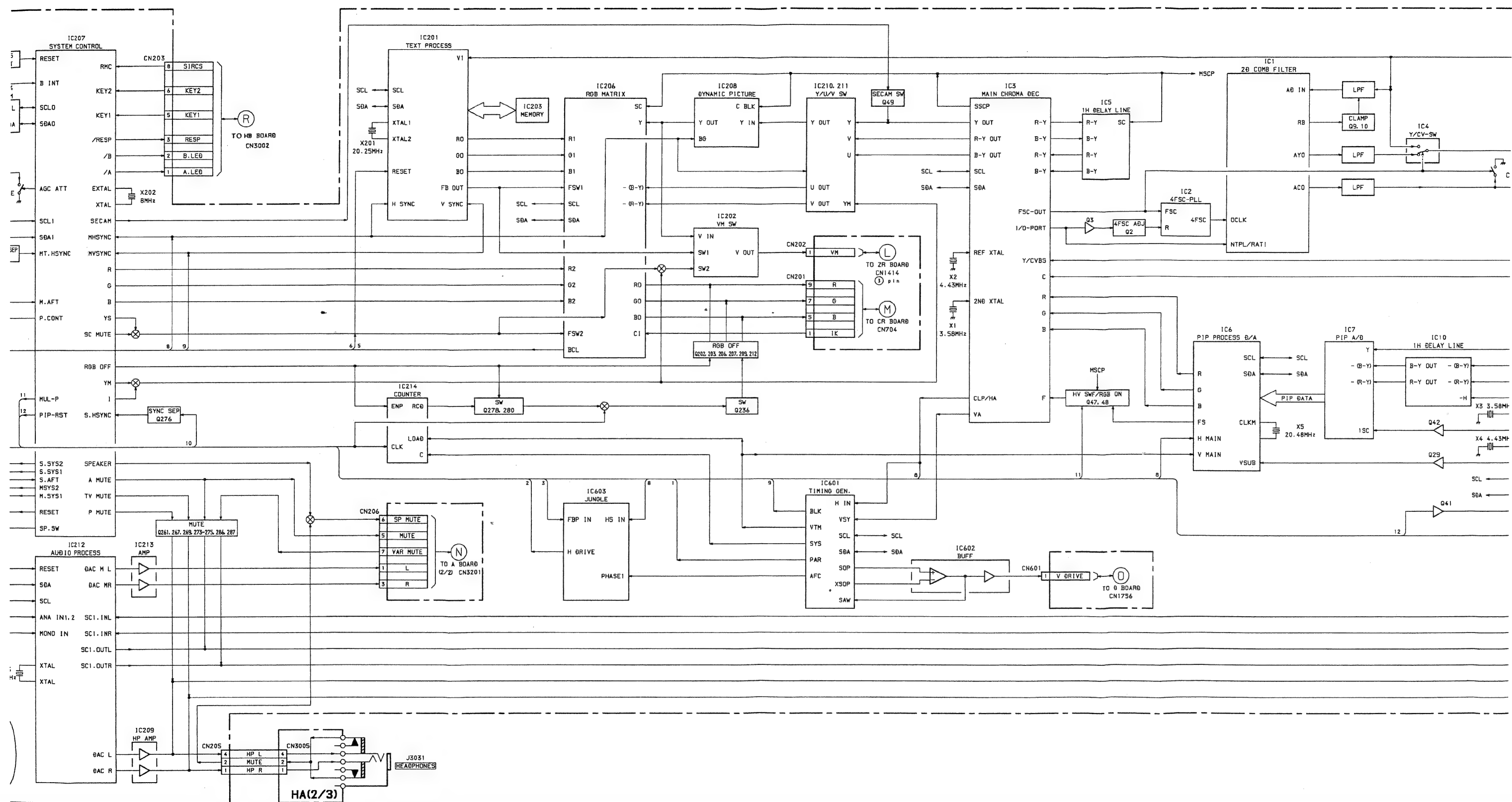
ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
B BOARD ADJUSTMENT SUB COLOR (SCOL) ADJUSTMENT 1. Input the PAL Color Bar signal and adjustment the picture control. 2. Set to service mode. 3. Connect an oscilloscope between ⑤ pin of CN201 and ground. 4. Adjust SCOL so that $V_{cy} = V_{Mg} = V_{Bi}$ in the waveform levels. 5. Write the data to memory. SUB HUE (MHUE,SHUE) ADJUSTMENT 1. Input the NTSC Color Bar signal. 2. Set to service mode. 3. Connect an oscilloscope between ⑤ pin of CN201 and ground. 4. Adjust MHUE so that $V_{cy} = V_{Mg}$ in the waveform levels. 5. Write the data to memory. (PIP MODE) 1. Input the NTSC Color Bar signal. 2. Select PIP on screen mode and put the set into service mode. 3. Connect an oscilloscope between ⑤ pin of CN201 and ground. 4. Adjust SHUE so that $V_{cy} = V_{Mg}$ in the waveform levels. 5. Write the data to memory. SUB CONTRAST ADJUSTMENT (PIP MODE) 1. Input the PAL Color Bar signal. 2. Select PIP on screen mode and put the set into service mode. 3. Connect an oscilloscope Q14 emitter on the B(1/3) board and ground. 4. Adjust SCON so that $V_{MAIN-Y} = V_{PIP-Y}$ in the waveform levels. 5. Write the data to memory.	PAL Color Bar pattern Oscilloscope	CN201 ⑤ pin (B(2/3) Board)	PICTURE 80% RGB SCOL : $V_{cy} = V_{Mg} = V_{Bi}$	 (PIP MODE) (PIP MODE)
	NTSC Color Bar pattern Oscilloscope	CN201 ⑤ pin (B(2/3) Board)	MCD MHUE : $V_{cy} = V_{Mg}$	
	NTSC Color Bar pattern Oscilloscope	CN201 ⑤ pin (B(2/3) Board)	SCD SHUE : $V_{cy} = V_{Mg}$	
	PAL Color Bar pattern Oscilloscope	Q14 emitter (B(1/3) Board)	PIP SCON: $V_{MAIN-Y} = V_{PIP-Y}$	

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
SUB WHITE BALANCE ADJUSTMENT (PIP MODE) 1. Input Gray Scale signal 20 IRE. 2. Select PIP in screen mode and put the set into service mode. 3. Connect an oscilloscope Q15 emitter on the B(1/3) board and ground. 4. Adjust RV1 so that $V_{main} = V_{pip}$ in the waveform levels. 5. Connect an oscilloscope Q16 emitter on the B(1/3) board and ground. 6. Adjust RV2 so that $V_{main} = V_{pip}$ in the waveform levels. P IN P POSITION ADJUSTMENT 1. Upon receiving the Monoscope signal. 2. Set service mode and then press the PIP command twice. The P in P position will then move periodically to four points. Adjust "RDV" and "RDH" on the new screen so that the four points are distributed equally at ; up, down, left and right. 3. Write the data to memory. TEXT POSITION ADJUSTMENT 1. Receive the RF signal with TEXT. 2. Set to service mode. 3. Set the TEXT in MIX mode and adjust the screen position with "TXH" and "TXV". 4. Write the data to memory. OSD POSITION ADJUSTMENT 1. Receive the PAL Color Bar signal. 2. Set to service mode. 3. Adjust "OSH" so that the center line of the signal and the center of the crosshairs of the OSD display match are aligned with each other. 4. Write the data to memory.	Oscilloscope	[B(1/3) Board] Q15 emitter (R-Y) Q16 emitter (B-Y) Q35 emitter (PIP-FS)	[B(1/3) Board] RV1 (R-Y) RV2 (B-Y)	
	Monoscope pattern		< PIP MENU > RDV RDH	
			< TXT MENU > TXH (H position) TXV (V position)	
	PAL Color Bar pattern		< CPU MENU > OSH	

SECTION 6 DIAGRAMS

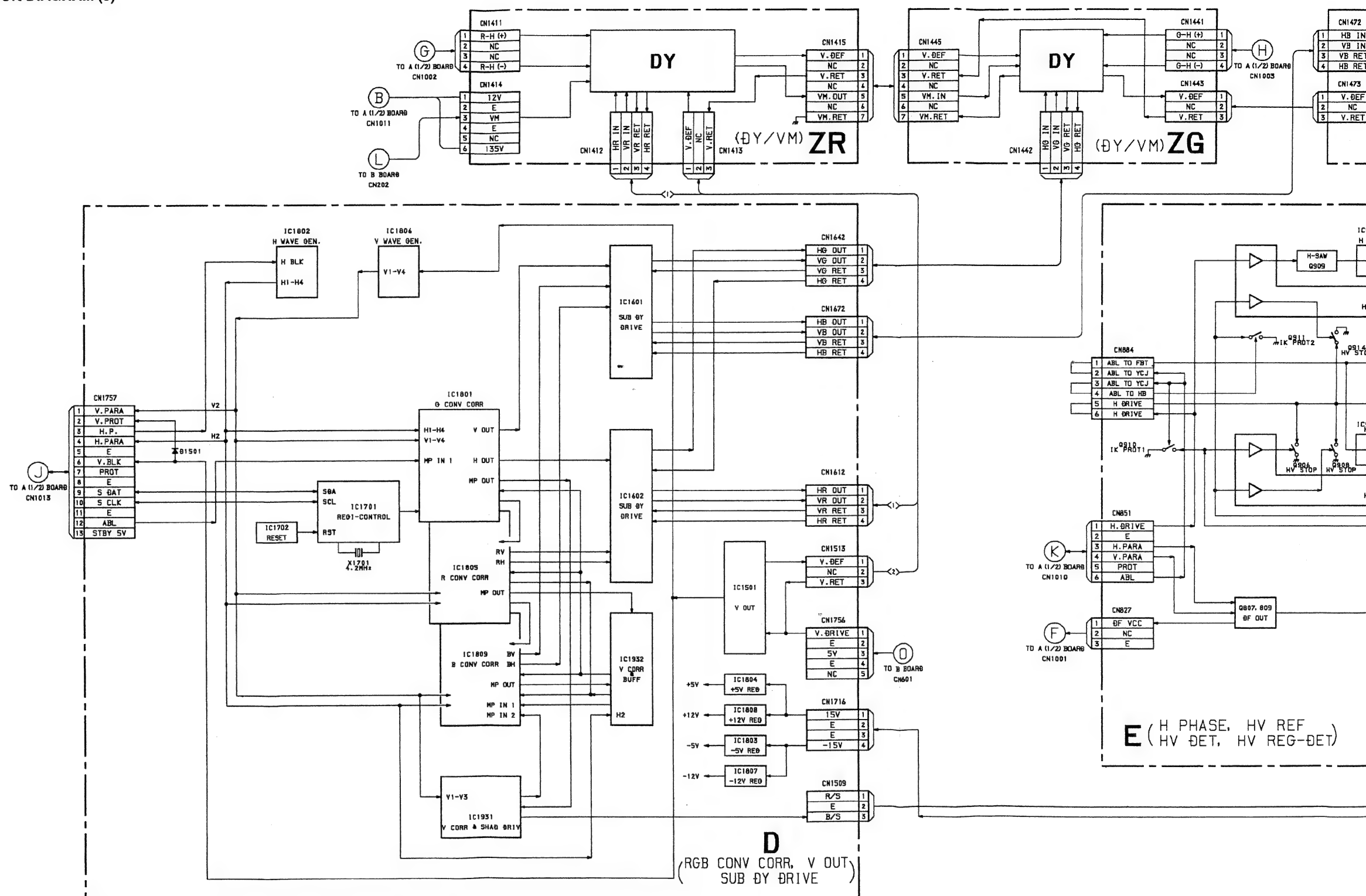
6-1. BLOCK DIAGRAM (1)

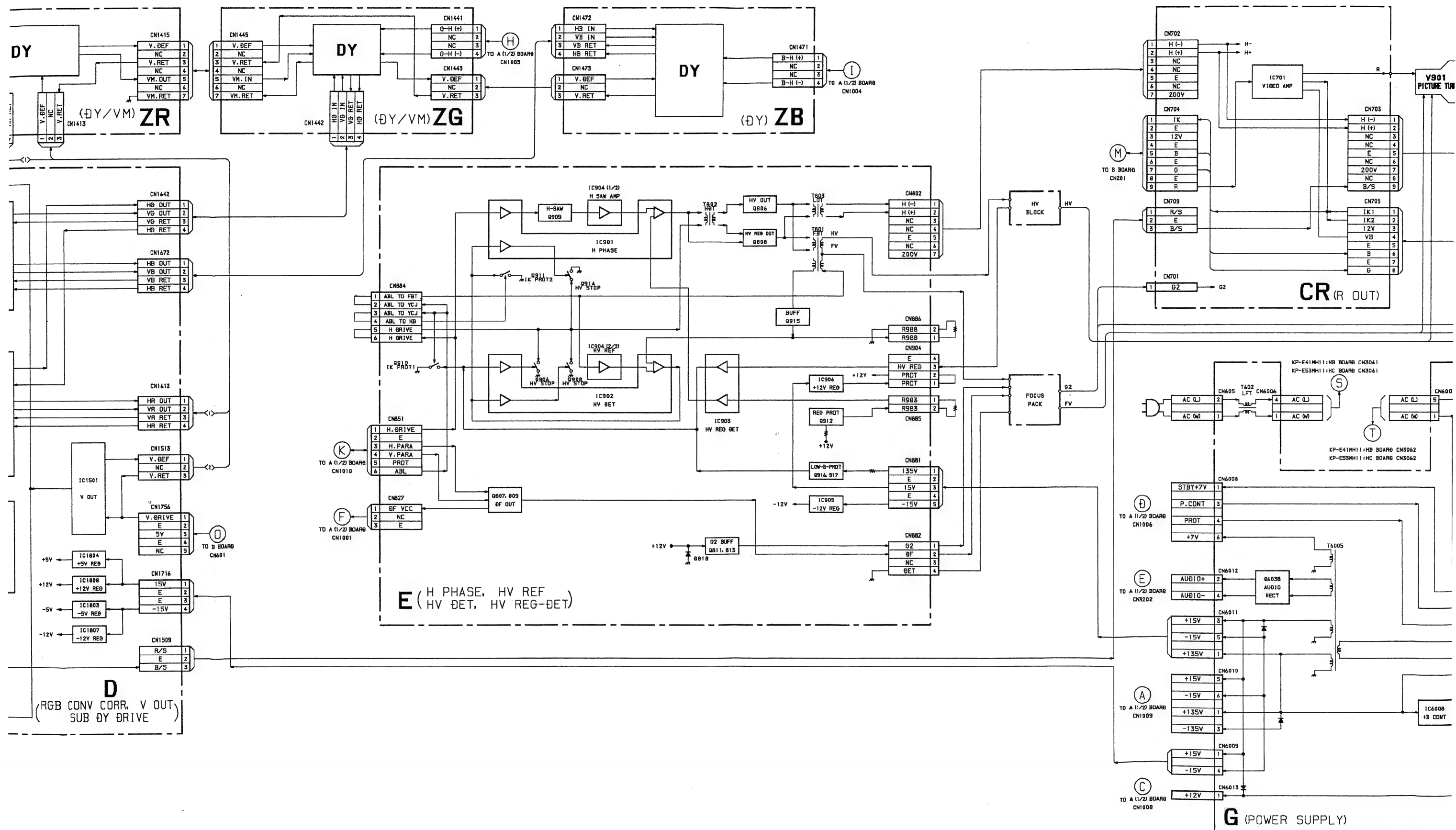


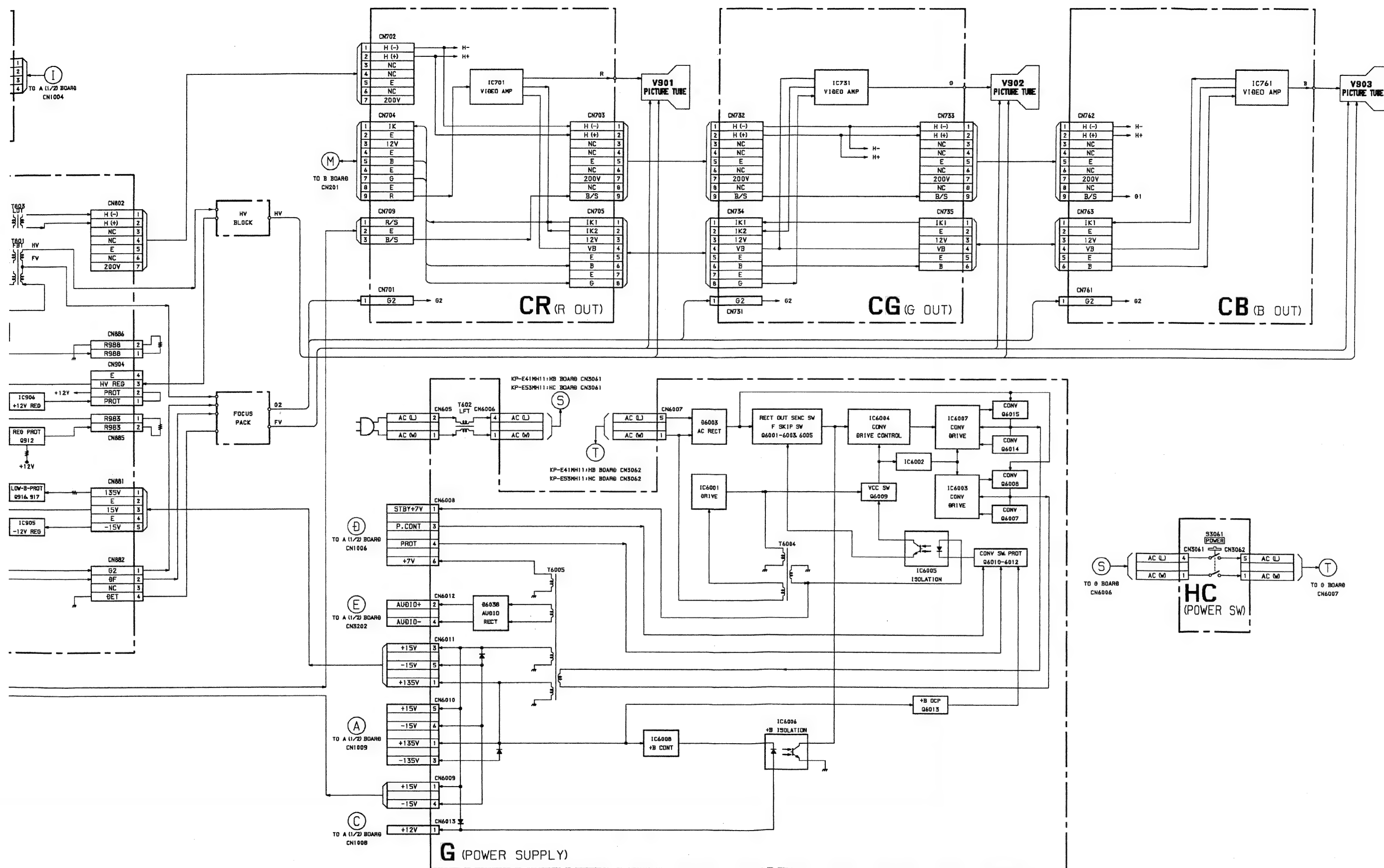


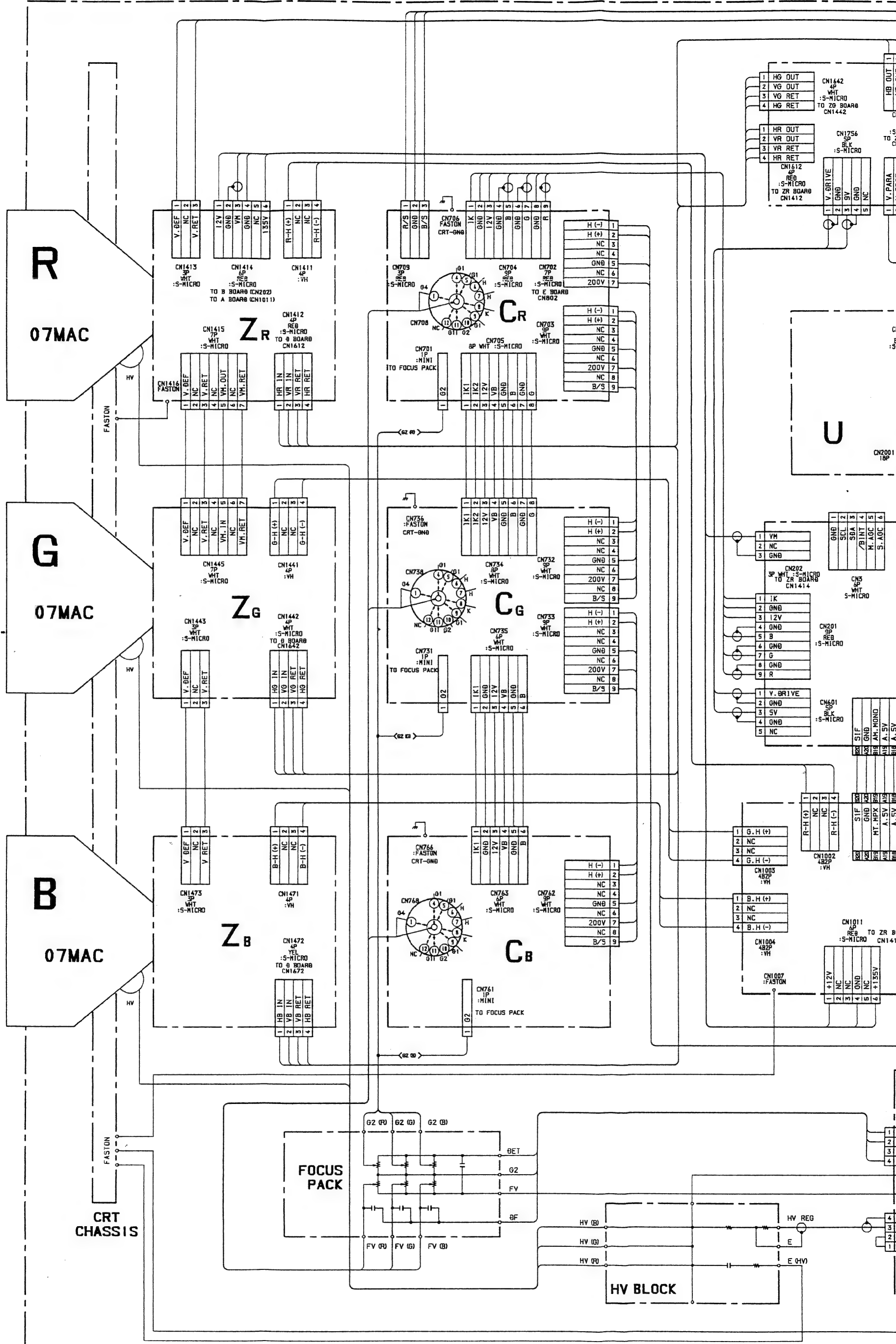


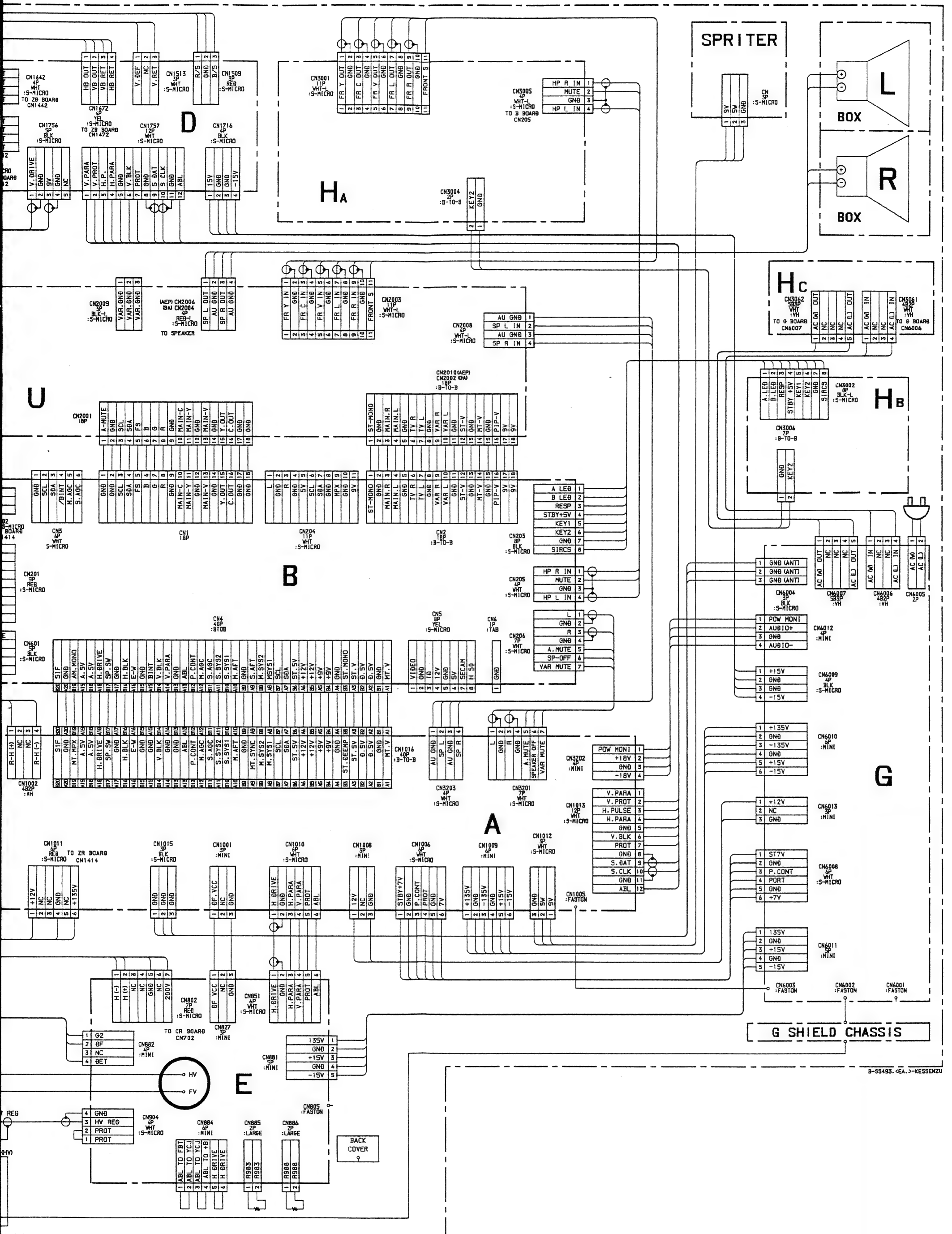
BLOCK DIAGRAM (3)



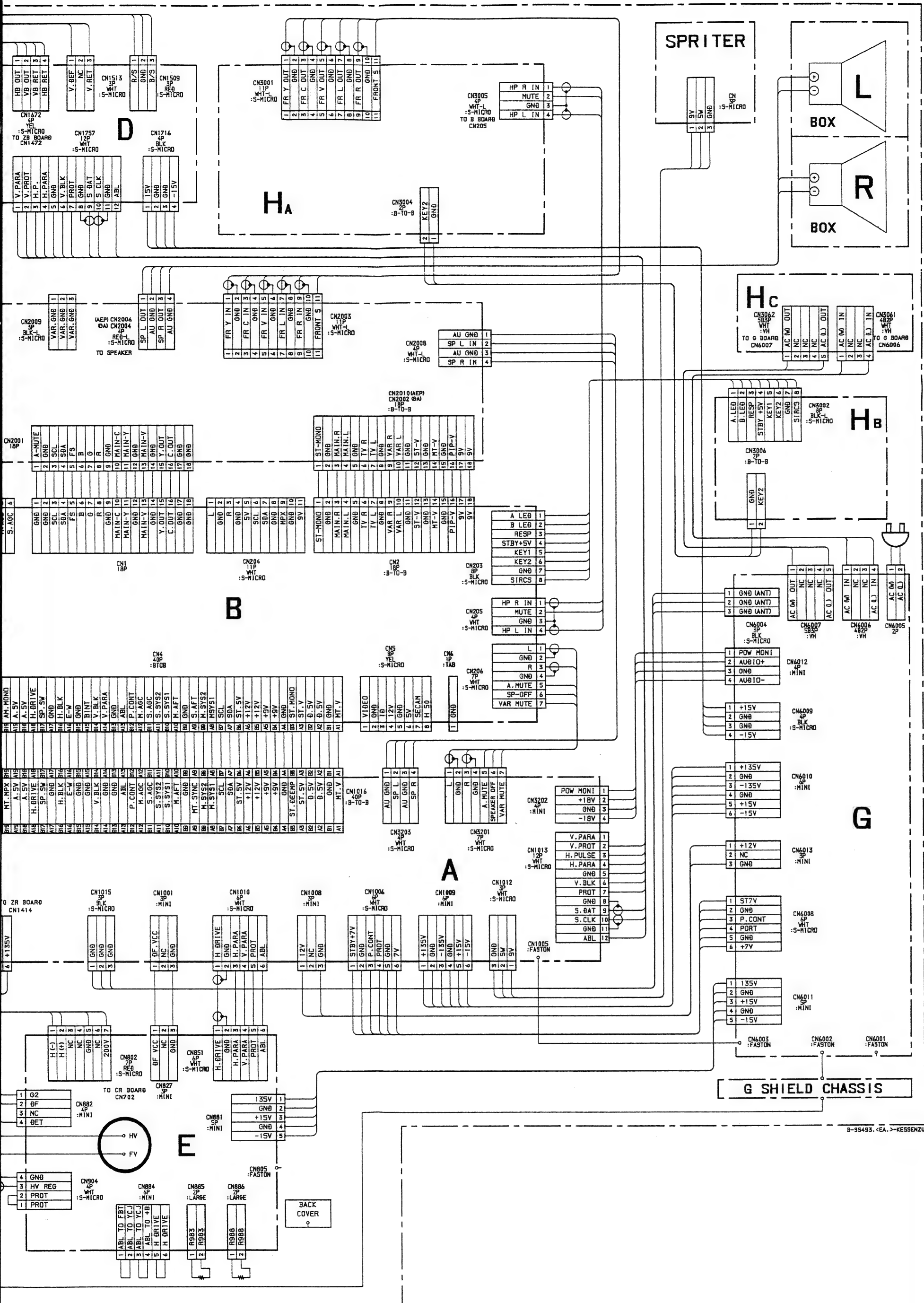




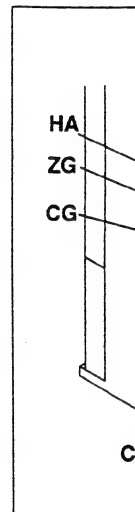













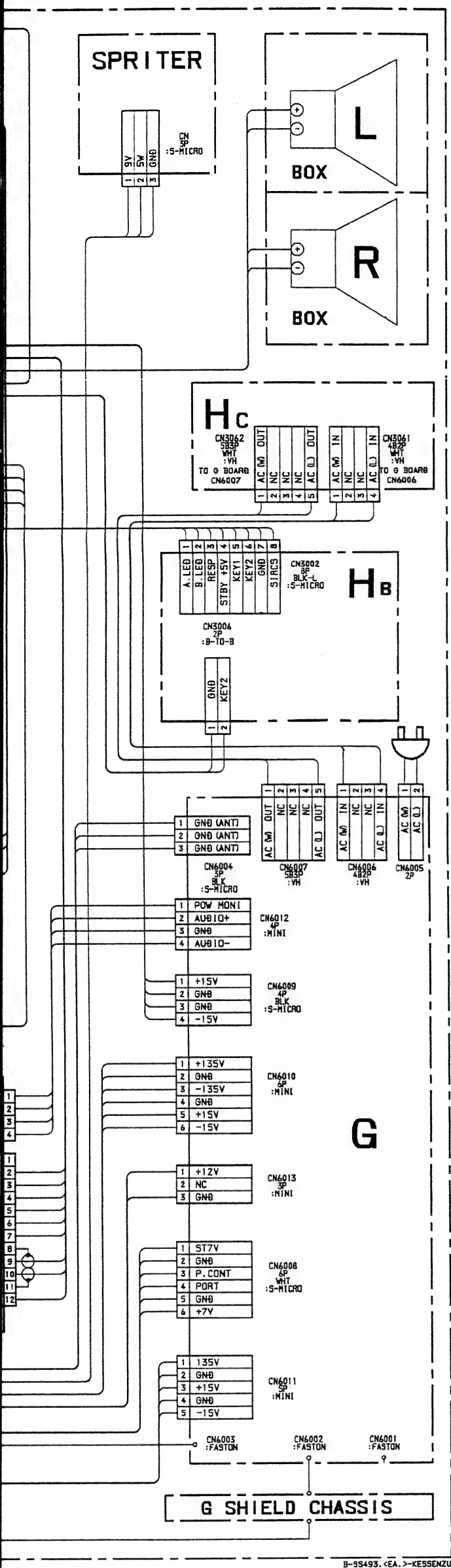
6-3. CIRCU



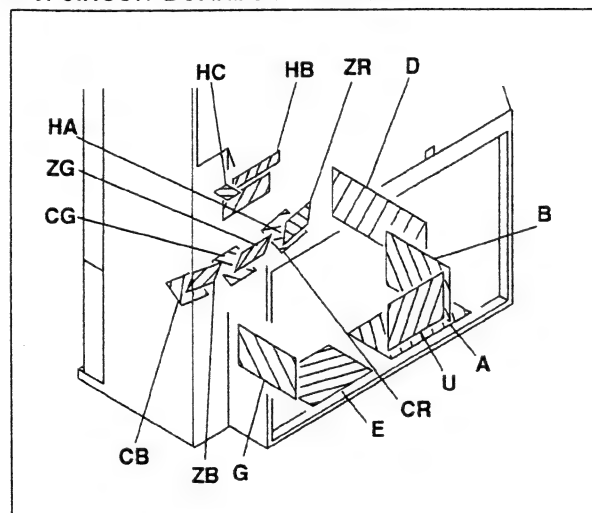
6-4. PRINT DIAGF

- Note:
 - Capacitors with
 - All resistors are
 - $k\Omega = 1000\Omega$, $M\Omega = 1000k\Omega$
 - Indication of res
 - as follows.
- | |
|-------------|
| Pitch : 5mm |
| Rating elec |
-  : nonfl
-  : fu
- Δ : internal ci
-  : panel
- All variable and
- noted.
-  : earth-cha
- The componen
- carefully fact
- X-ray radiatio
- Should replac
- When replacin
- indicated. If re
- identified by  (Refer to R80
- When replacin

	Pa
HVBlock C818, D804, Q915, R809, R883, R954, R995, R996,E B	
HV Block, C918, C930, R808, R851, R945, R946, R967, R971, R985, R998E BOAR	



6-3. CIRCUIT BOARDS LOCATION



6-4. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

- Note:
- Capacitors without voltage indication are all 50.
 - All resistors are in ohms.
kΩ=1000Ω, MΩ=1000kΩ
 - Indication of resistance, which dose not have one for rating electrical power, is as follows.
Pitch : 5mm
Rating electrical power : 1/4W (CHIP : 1/10W)
 - : nonflammable resistor.
 - : fusible resistor.
 - : internal component.
 - : panel designation and adjustment for repair.
 - All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
 - : earth-chassis.
 - The components identified by in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation.
Should replacement be required, replace only with the value originally used.
 - When replacing components identified by , make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by and repeat the adjustment until the specified value is achieved. (Refer to R808, R809, R983 and R988 adjustment on Page 40 - 42.)
 - When replacing the part in below table, be sure to perform the related adjustment.

Part replaced ()	Adjustment ()
HVBlock C818, D804, D806, D809, D909, D912, Q915, R809, R855, R856, R857, R858, R883, R954, R955, R984, R988, R991, R995, R996, T801(FBT), T803E BOARD	HV HOLD-DOWN (R809, R988)
HV Block, C918, C930, C934, C980, D920, Q909, R808, R851, R936, R939, R942, R944, R945, R946, R947, R950, R960, R965, R967, R971, R975, R976, R982, R983, R985, R998E BOARD	HV Regulator (R808, R983)

Terminal name of semiconductors in silk screen printed circuit (*)

Device	Printed symbol	Terminal name	Circuit
① Transistor		Collector Base Emitter	
② Transistor		Collector Base Emitter	
③ Diode		Cathode Anode	
④ Diode		Cathode Anode (NC)	
⑤ Diode		Cathode Anode (NC)	
⑥ Diode		Common Anode Cathode	
⑦ Diode		Common Anode Cathode	
⑧ Diode		Common Anode Anode	
⑨ Diode		Common Anode Anode	
⑩ Diode		Common Cathode Cathode	
⑪ Diode		Common Cathode Cathode	
⑫ Transistor (FET)		Drain Source Gate	
⑬ Transistor (FET)		Drain Source Gate	
⑭ Transistor (FET)		Drain Source Gate	
Discrete semiconductor			

(Chip semiconductors that are not actually used are included.)

Ver.1.4

- As to the voltage value shown by the semiconductors on the Schematic Diagram, see the another list
- Readings are taken with a color-bar signal input.
- Readings are taken with a 10MΩ digital multimeter.
- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.
- * : Measurement impossibility.
- : B+line.
- : B-line.
- (Actual measured value may be different).
- : signal path.
- Circled numbers are waveform references.

Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RW	NONFLAMMABLE WIREWOUND
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: *	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

Note: The symbol display is on the component side.

The components identified by shading and mark are critical for safety. Replace only with part number specified.

The symbol indicate fast operating fuse. Replace only with fuse of same rating as marked.

Note: Les composants identifiés par un trame et une marque sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Le symbole indique une fusible a action rapide. Doit être remplacée par une fusible de même valeur, comme marqué.

1 0.5Vp-p (H)

2 0.7Vp-p (H)

3 1.4Vp-p (H)

4 0.9Vp-p (H)

5 5.0Vp-p (V)

6 1.5Vp-p (H)

7 0.8Vp-p (H)

8 1.3Vp-p (H)

9 4.8Vp-p (H)

10 0.7Vp-p (H)

11 1.1Vp-p (H)

12 4.7Vp-p (H)

13 4.7Vp-p (V)

14 5.0Vp-p (20.48MHz)

15 1.0Vp-p (H)

16 0.8Vp-p (H)

17 0.7Vp-p (H)

18 0.6Vp-p (H)

19 0.5Vp-p (H)

20 0.7Vp-p (H)

21 1.3Vp-p (H)

22 1.8Vp-p (H)

23 2.3Vp-p (H)

24 2.0Vp-p (H)

25 1.3Vp-p (H)

26 2.0Vp-p (H)

27 2.3Vp-p (H)

28 1.9Vp-p (H)

29 1.3Vp-p (H)

B (1/3) BOARD : IC4 NJM2235M

GND V out V+ V in 3

8 7 6 5

The diagram illustrates a video signal processing system with two parallel channels for video signals (16 and 14) and a common clock and control section.

Video Channels:

- Channel 16:** Signal Clamping → Pre-amplifiers → Line Memory → Sample-and-Hold → LP → Addition Stages → Output Buffers.
- Channel 14:** Signal Clamping → Pre-amplifiers → Line Memory → Sample-and-Hold → LP → Addition Stages → Output Buffers.

Clock and Control Section:

- Sandcastle Detector:** Receives an analog supply (5V) and outputs to the Frequency Phase Detector.
- Frequency Phase Detector:** Outputs to the Divider by 192 and the LP filter.
- Divider by 192:** Outputs to the 3 MHz crystal clock.
- 3 MHz crystal clock:** Provides a common clock signal to the Sample-and-Hold and LP filters in both channels.
- 6 MHz CCO:** Receives a digital supply (1V) and outputs to the Divider by 2.
- Divider by 2:** Outputs to the 3V, 4V, and 8V digital supply rails.

Power Supplies:

- Analog Supply:** 5V and 10V rails.
- Digital Supply:** 1V, 3V, 4V, and 8V rails.

The block diagram of the Philips 7443 video processor shows the following internal components and their connections:

- Top Row:** 12CBUS, Y-SYNC, TIMING, PH12, VERSAW, GEOPROC.
- Second Row:** SYNCSEP, H-PLL.
- Third Row:** SWITCH, ACC, CLOCHE, FBCTAL, SECAM DEMOD, IDMT.
- Fourth Row:** SWITCH, CHROMABR, PLL, HUE, PAL / NTSC DEMOD.
- Fifth Row:** BIAS, DELAY, TRAP.

Pin connections are indicated by numbers and lines:

- Pin 7:** Connected to 12CBUS.
- Pin 4:** Connected to 12CBUS.
- Pin 21:** Connected to Y-SYNC.
- Pin 8:** Connected to BIAS.
- Pin 9:** Connected to SWITCH.
- Pin 13:** Connected to SWITCH.
- Pin 16:** Connected to SWITCH.
- Pin 1:** Connected to TRAP.
- Pin 31:** Connected to TRAP.
- Pin 10:** Connected to TRAP.
- Pin 2:** Connected to IDMT.
- Pin 3:** Connected to IDMT.
- Pin 34:** Connected to IDMT.
- Pin 25:** Connected to PAL / NTSC DEMOD.

IC1	1	GND		5	4.9	IC7	25	0.7
	2	GND		6	4.9		26	1.5
	3	GND		7	8.6		27	1.5
	4	GND		8	5.4		28	5.2
	5	GND		9	GND		1	4.4
	6	GND		10	0.8		2	1.5
	7	GND		11	0		3	1.5
	8	GND		12	3.5		4	0.7
	9	GND		13	2.8		5	1.5
	10	GND		14	2.8		6	1.9
	11	2.4		15	5.0		7	2.0
	12	GND		16	0.6		8	0.9
	13	4.9		17	0.4		9	1.0
	14	2.4		18	0.4		10	0.9
	15	2.4		19	5.3		11	0.9
	16	2.4		20	5.3		12	2.8
	17	4.9		21	5.3		13	GND
	18	4.9		22	3.2		15	4.8
	19	GND		23	4.5		16	GND
	20	0		24	4.4		17	2.3
	21	1.1		25	0.1		18	GND
	22	0.6		26	4.1		19	2.8
	23	GND		27	GND		20	1.2
	24	GND		28	3.9		21	2.8
	25	1.4		29	5.2		22	2.0
	26	4.9		30	2.9		23	2.6
	27	2.6		31	3.0		24	5.2
	28	4.9		32	0		25	GND
	29	4.9	IC4	1	4.6		26	GND
	30	GND		2	3.6		27	GND
	31	1.3		3	4.6		28	5.2
	32	3.0		4	GND		1	2.7
	33	3.2		5	4.0		2	2.3
	34	3.2		6	9.4		3	2.3
	35	GND		7	3.9		4	4.9
	36	1.1		8	GND		5	4.9
	37	4.9	IC5	1	5.3		6	0.7
	38	GND		3	GND		7	8.5
	39	1.6		4	GND		8	5.3
	40	3.0		5	0.8		9	GND
41	3.2		8	GND	10	0.4		
42	3.2		9	5.2	11	7.7		
43	GND		10	GND	12	4.1		
52	GND		11	3.3	13	GND		
53	4.9		12	3.3	14	2.3		
56	4.9		14	1.6	15	GND		
67	4.9		16	1.6	16	GND		
68	4.9	IC6	1	4.4	18	3.9		
69	5.0		2	0.4	19	0.4		
70	5.0		3	5.2	21	4.3		
71	GND		4	2.1	25	8.5		
72	GND		5	0	26	4.1		
73	4.9		6	0	27	GND		
74	4.9		7	0	28	3.7		
75	GND		8	GND	29	5.0		
76	GND		9	0	30	2.5		
77	GND		10	0.4	31	1.7		
78	GND		11	0.4	32	0		
79	GND		12	2.1	1	5.2		
80	GND		13	2.6	3	GND		
IC2	1	2.6	14	GND	4	GND		
	2	2.0	15	4.9	5	0.7		
	3	GND	16	5.0	8	GND		
	4	3.1	17	2.8	9	5.2		
IC3	5	3.2	18	0.9	10	GND		
	6	4.9	19	0.9	11	3.4		
	7	3.5	20	1.0	12	3.3		
	1	2.4	21	0.9	14	1.6		
IC3	2</							

All Voltage are in V.
Pin numbers which are not described are not used.

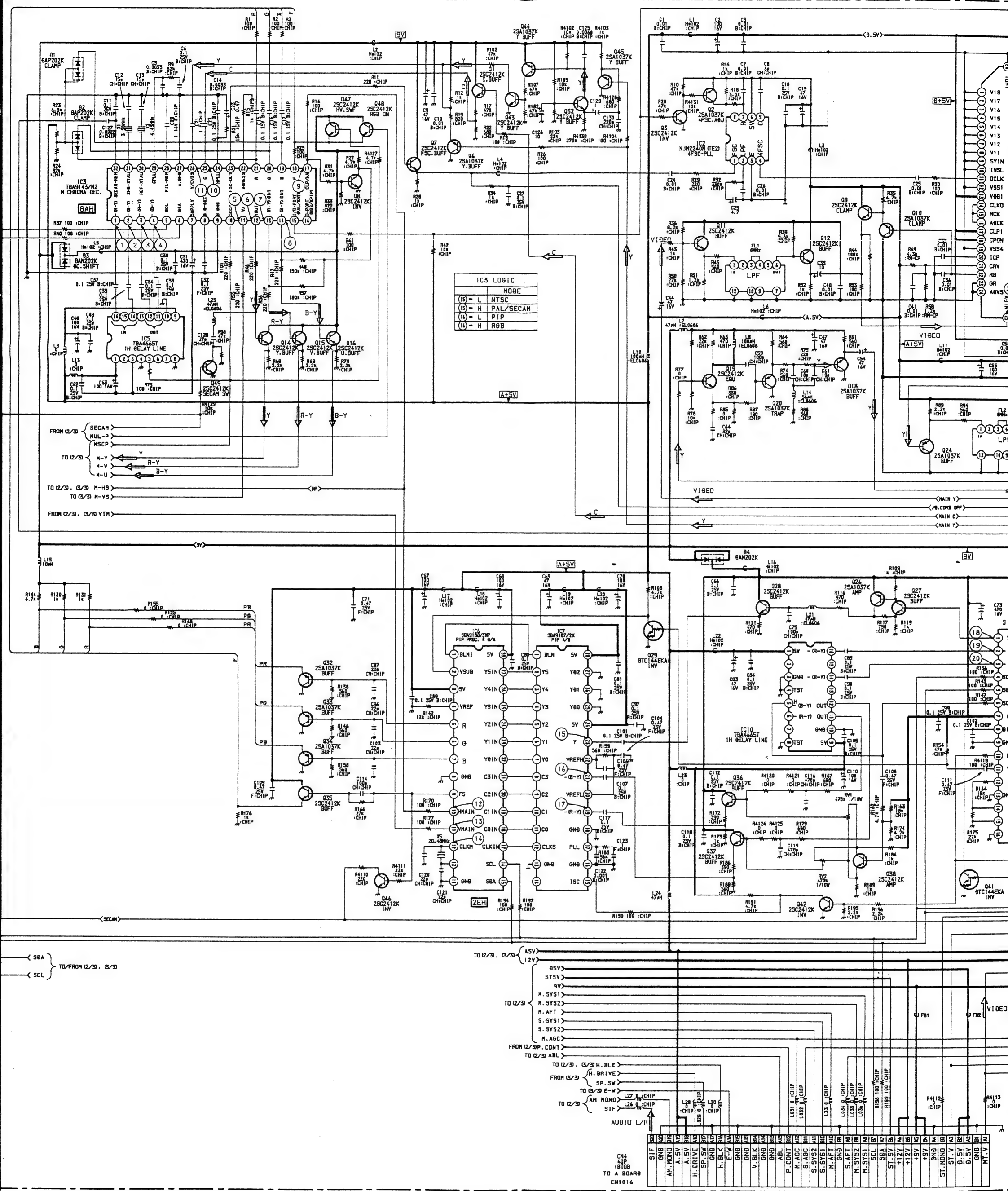
	B	C	E		B	C	E
Q1	5.4	9.4	4.8	Q26	8.0	3.3	8.5
Q2	4.0	4.8	4.9	Q27	2.7	8.0	2.1
Q3	0.7	4.0	GND	Q28	3.3	8.5	2.5
Q6	5.4	GND	6.0	Q29	4.6	0.4	GND
Q7	4.5	9.4	3.9	Q30	2.5	GND	3.1
Q8	0	7.8	GND	Q32	0	GND	0.8
Q9	1.2	4.9	1.4	Q33	0	GND	0.7
Q10	0.6	GND	1.2	Q34	0	GND	0.7
Q11	3.7	4.9	3.1	Q35	0	5.2	0.4
Q12	3.3	4.9	2.6	Q36	3.4	8.5	2.7
Q13	0	2.5	GND	Q37	3.4	8.5	2.7
Q14	3.5	8.6	2.9	Q38	1.8	8.5	1.9
Q15	2.9	8.6	2.2	Q41	0	5.3	GND
Q16	2.8	8.6	2.2	Q42	0.2	4.8	GND
Q17	3.7	0	GND	Q43	0	6.3	GND
Q18	2.9	GND	3.6	Q44	9.1	0	9.4
Q19	2.9	9.3	2.2	Q45	3.8	GND	4.4
Q20	2.2	GND	2.9	Q46	0	0	GND
Q22	2.5	3.2	1.8	Q47	0.7	8.6	0.7
Q23	1.6	GND	2.3	Q48	0	8.6	0.7
Q24	1.3	GND	1.9	Q49	0	0	GND
Q25	2.2	GND	2.8	Q52	6.3	9.1	5.7

All voltages are in V

The block diagram illustrates a PLL system with the following components and connections:

- PHASE COMPARATOR**: Receives input at point 1 and output at point 2.
- FREQUENCY DEMULTIPLIER**: Receives input at point 8 and output at point 7.
- SEARCH CIRCUIT**: Receives input at point 2 and output at point 4.
- V. C. O.** (Voltage Controlled Oscillator): Receives input at point 5 and output at point 4.
- Output Point 3**: A direct output from the input line.
- Feedback Loop**: A line from point 7 passes through a triangular block (likely a divider or filter) and then connects to point 1.

Schematic diagrams
B (1/3) board ➔



E LIST

3.9	25	0.7
3.9	26	1.5
3.6	27	1.5
3.4	28	5.2
3ND	1	4.4
0.8	2	1.5
0	3	1.5
3.5	4	0.7
2.8	5	1.5
2.8	6	1.9
5.0	7	2.0
0.6	8	0.9
0.4	9	1.0
0.4	10	0.9
5.3	11	0.9
5.3	12	2.8
5.3	13	GND
3.2	15	4.8
4.5	16	GND
4.4	17	2.3
0.1	18	GND
4.1	19	2.8
GND	20	1.2
3.9	21	2.8
5.2	22	2.0
2.9	23	2.6
3.0	24	5.2
0	25	GND
4.6	26	GND
3.6	27	GND
4.6	28	5.2
GND	1	2.7
4.0	2	2.3
9.4	3	2.3
3.9	4	4.9
GND	5	4.9
5.3	6	0.7
GND	7	8.5
GND	8	5.3
0.8	9	GND
GND	10	0.4
5.2	11	7.7
GND	12	4.1
3.3	13	GND
3.3	14	2.3
1.6	15	GND
1.6	16	GND
4.4	18	3.9
0.4	19	0.4
5.2	21	4.3
2.1	25	8.5
0	26	4.1
0	27	GND
0	28	3.7
GND	29	5.0
0	30	2.5
0.4	31	1.7
0.4	32	0
2.1	1	5.2
2.6	3	GND
GND	4	GND
4.9	5	0.7
5.0	8	GND
2.8	9	5.2
0.9	10	GND
0.9	11	3.4
1.0	12	3.3
0.9	14	1.6
2.0	16	1.6
1.9		
1.5		

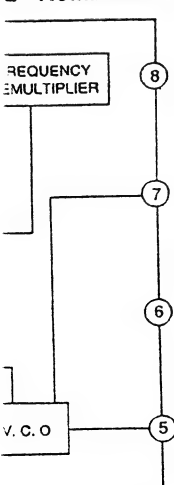
All Voltage are in V.
are not described are not used.

LIST

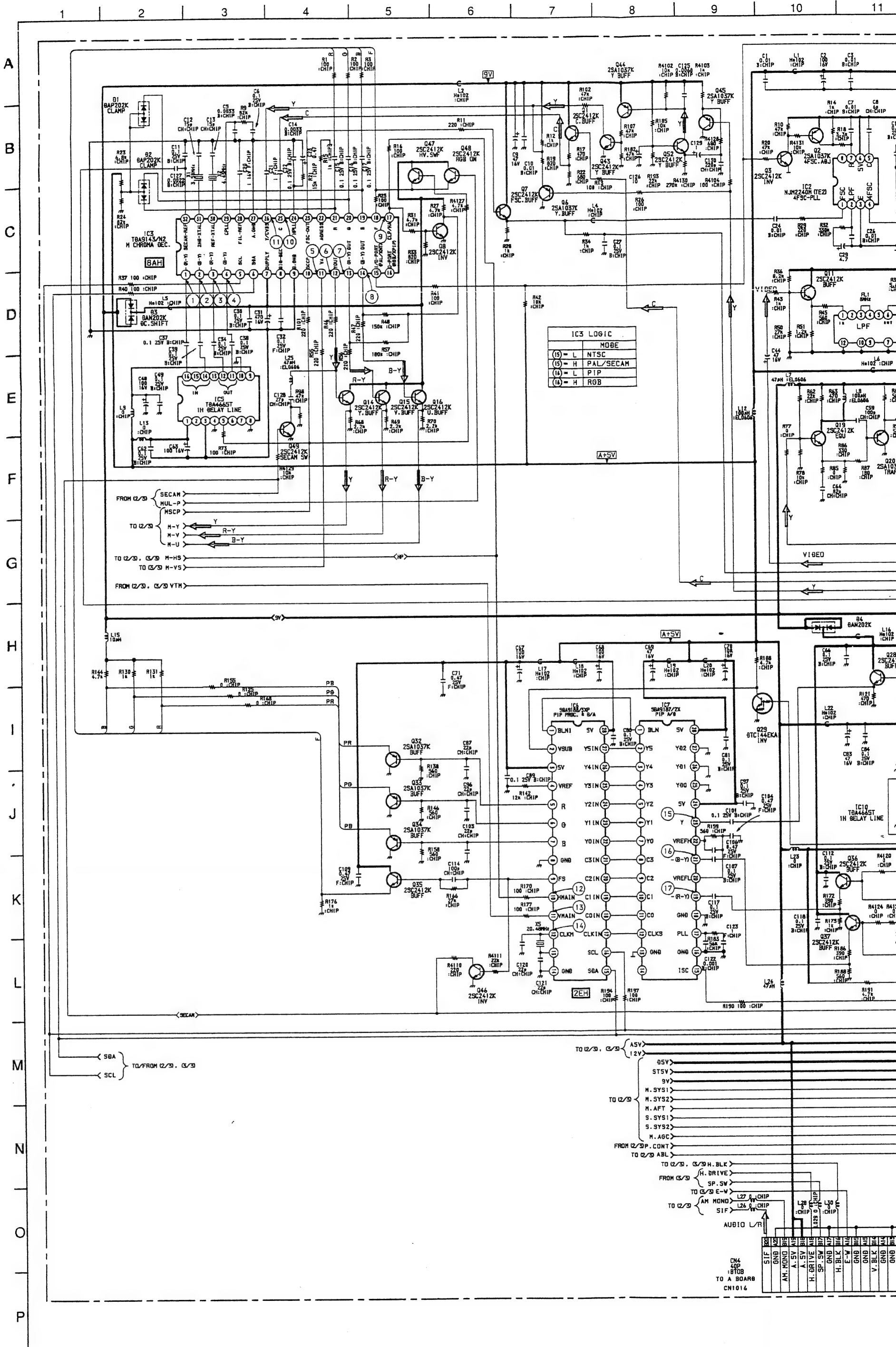
B	C	E
8.0	3.3	8.5
2.7	8.0	2.1
3.3	8.5	2.5
4.6	0.4	GND
2.5	GND	3.1
0	GND	0.8
0	GND	0.7
0	GND	0.7
0	5.2	0.4
3.4	8.5	2.7
3.4	8.5	2.7
1.8	8.5	1.9
0	5.3	GND
0.2	4.8	GND
0	6.3	GND
9.1	0	9.4
3.8	GND	4.4
0	0	GND
0.7	8.6	0.7
0	8.6	0.7
0	0	GND
6.3	9.1	5.7

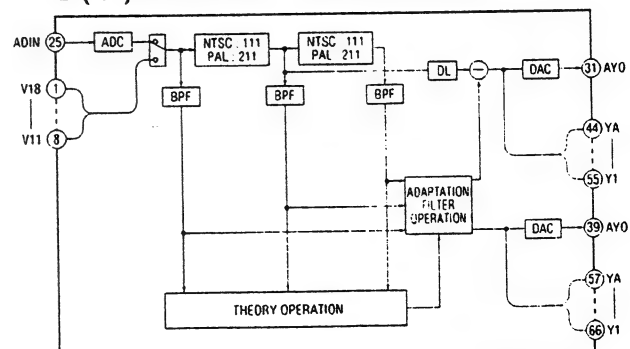
All voltages are in V.

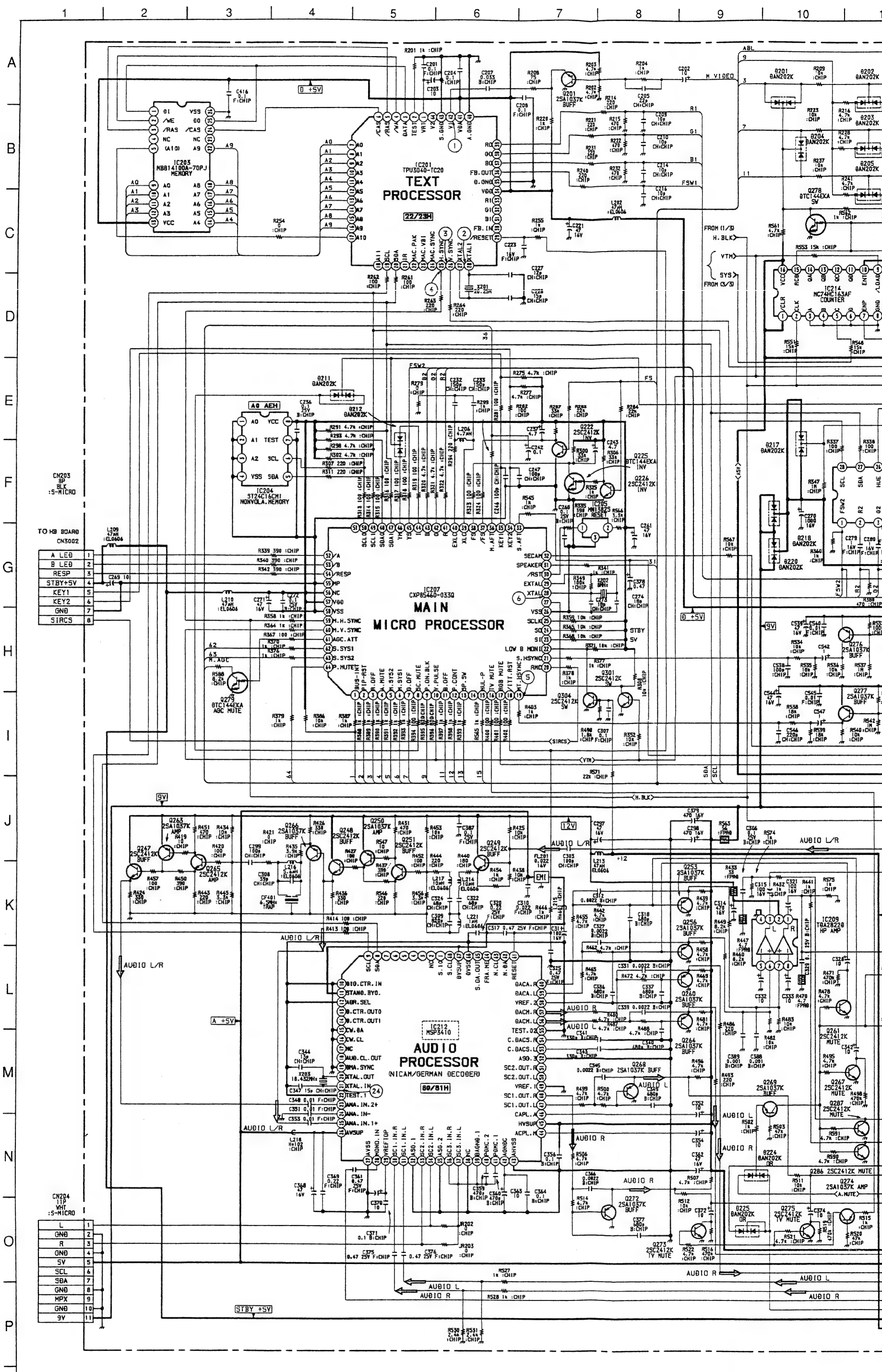
2 NJM2240M (TE2)

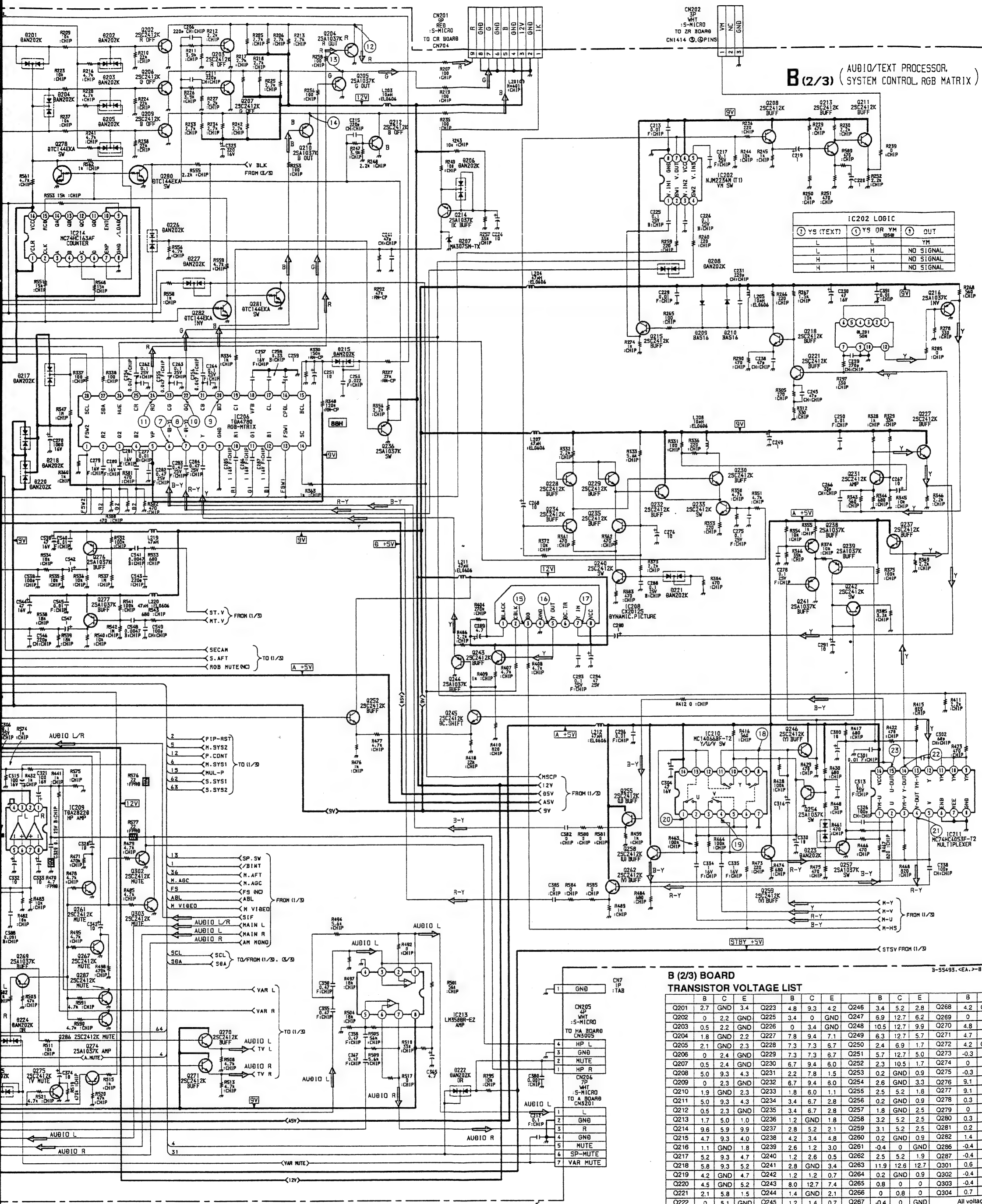


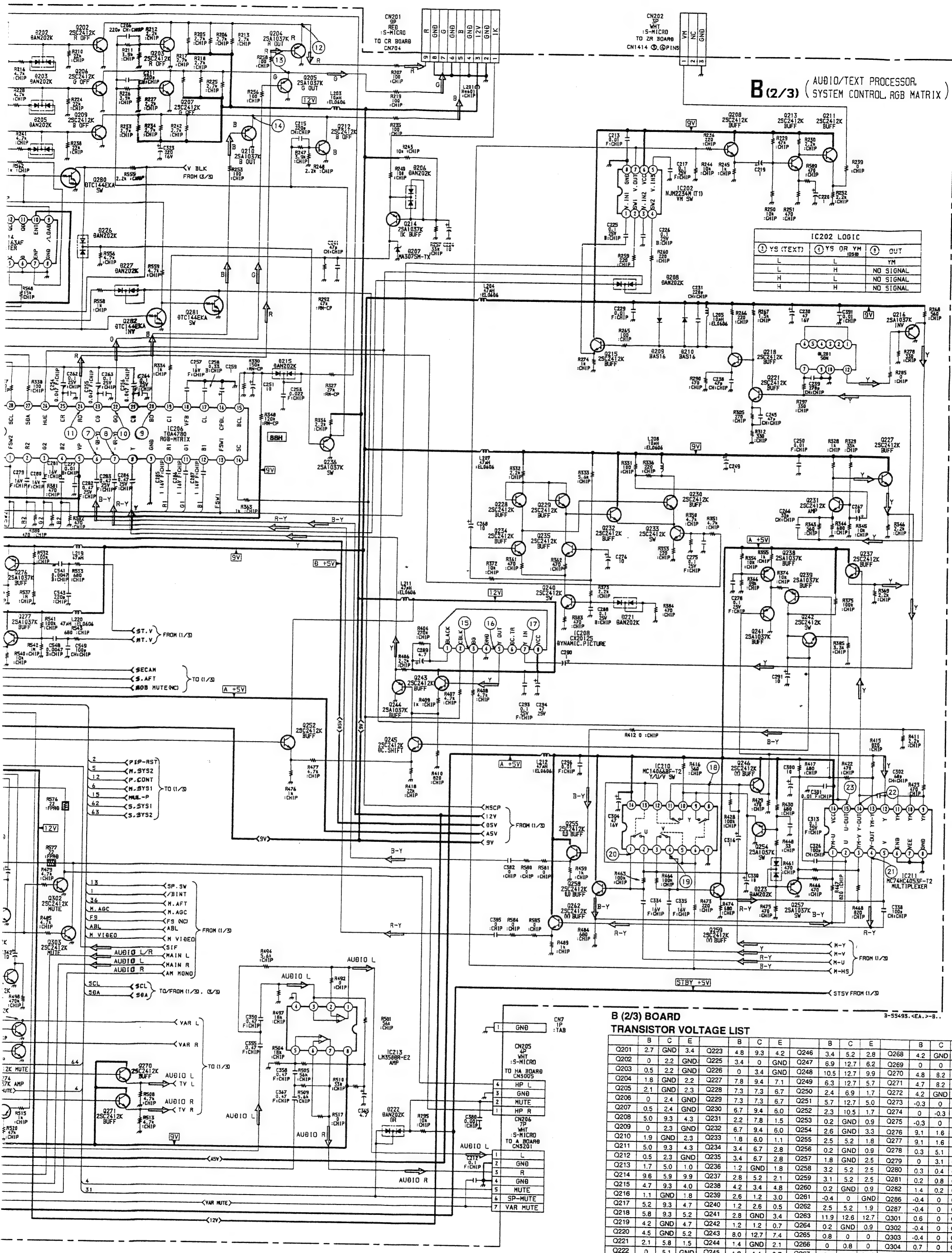
atic diagrams
board →









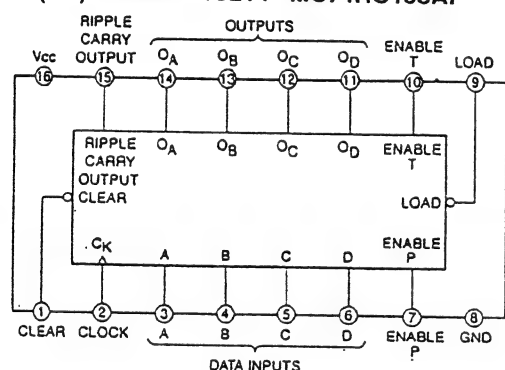


B (2/3) BOARD IC VOLTAGE LIST

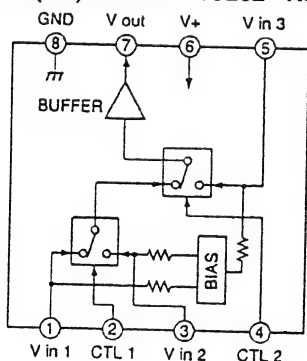
IC201	1	3.1	IC206	3	GND	IC208	43	0	IC209	11	5.2
	2	0		1	0		44	0		12	GND
	3	0.2		2	5.4		45	0		15	GND
	4	5.2		3	5.4		46	0		16	GND
	5	5.1		4	5.4		47	4.9		19	GND
	6	5.2		5	8.6		48	5.2		20	2.7
	7	2.7		6	4.3		49	4.9		21	2.6
	8	2.7		7	4.3		50	5.2		22	GND
	9	2.7		8	4.1		52	4.0		23	1.7
	10	2.7		9	GND		53	4.0		24	1.7
	11	2.7		10	5.4		54	4.0		25	0.7
	12	2.6		11	5.4		55	GND		26	5.2
	13	2.6		12	5.4		56	5.2		27	GND
	14	2.7		13	0		57	5.2		28	4.1
	15	2.7		14	0.8		58	0		29	2.9
	16	2.6		15	4.5		59	0.4		30	4.1
	17	2.6		16	5.1		60	0.6		31	4.1
	19	4.9		17	5.5		61	0		32	GND
	20	4.9		18	2.2		62	0		33	4.1
	25	0.4		19	5.8		63	0		34	4.1
	26	0.6		20	1.9		64	0		35	GND
	27	2.8		21	3.2		1	9.3		36	4.1
	28	*		22	2.1		2	0.6		37	4.1
	29	5.2		23	3.2		3	0.3		38	GND
	34	5.2		24	1.8		4	GND		39	4.1
	35	GND		25	3.0		5	8.0		40	4.1
	36	0		26	3.5		6	9.5		41	4.1
	37	0		27	5.0		7	6.1		42	4.1
38	0	28	4.8	8	12.7	43	GND				
39	0	1	5.2	1	6.5	44	7.2				
40	GND	2	0	2	12.4	45	8.2				
41	5.2	3	0	3	6.6	46	7.1				
42	1.7	4	0	4	GND	47	4.2				
43	GND	5	0	5	1.4	48	4.2				
IC202	1	5.7	6	0	6	0.9	49	GND			
	2	0	7	0	7	0.9	52	GND			
	3	5.8	8	0	8	1.4	53	4.1			
	4	0	9	0	1	3.2	54	4.1			
	5	5.7	10	0.6	2	3.3	55	GND			
	6	9.3	11	0	3	3.3	56	0.2			
	7	5.0	12	5.1	4	3.1	57	0.2			
	8	GND	13	0	5	0.4	58	GND			
IC203	1	0.2	15	0	6	0.4	59	0.2			
	2	5.2	16	0	7	GND	60	0.2			
	3	5.1	17	0	8	3.4	61	5.2			
	5	0	18	5.2	9	3.3	66	GND			
	9	2.7	19	0.2	10	3.3	67	5.2			
	10	2.7	20	5.2	11	3.4	1	1.1			
	11	2.7	21	0.2	12	0.4	2	1.2			
	12	2.7	22	0	13	0.4	3	1.2			
	13	5.2	23	0	14	5.2	4	GND			
	14	5.7	24	0	1	2.5	5	1.2			
	15	2.6	25	5.2	2	2.5	6	1.1			
	16	2.6	26	GND	3	2.5	7	1.2			
	17	2.7	27	0	4	2.5	8	8.2			
IC204	18	2.7	28	2.7	5	2.5	1	0			
	22	2.6	29	2.6	6	GND	2	1.4			
	24	5.2	30	5.2	7	GND	3	GND			
	25	0.2	31	0	8	GND	4	GND			
	26	GND	32	0	9	0	5	0			
	1	GND	33	0	10	0	6	GND			
	2	GND	34	5.2	11	0	7	5.2			
	3	GND	35	5.2	12	2.8	8	GND			
	4	GND	36	2.6	13	2.6	9	0.5			
	5	5.2	37	5.2	14	2.8	10	5.2			
	6	5.2	38	0	15	2.5	15	0			
	7	GND	39	3.8	16	5.2	16	5.3			
	8	5.2	40	2.8	8	5.0					
IC205	1	5.2	41	0	9	4.9					
	2	5.2	42	0	10	GND					

All Voltage are in V.
Pin numbers which are not described are not used.
* : Can not measured.

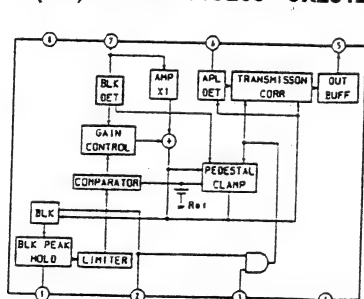
B (2/3) BOARD : IC214 MC74HC163AF



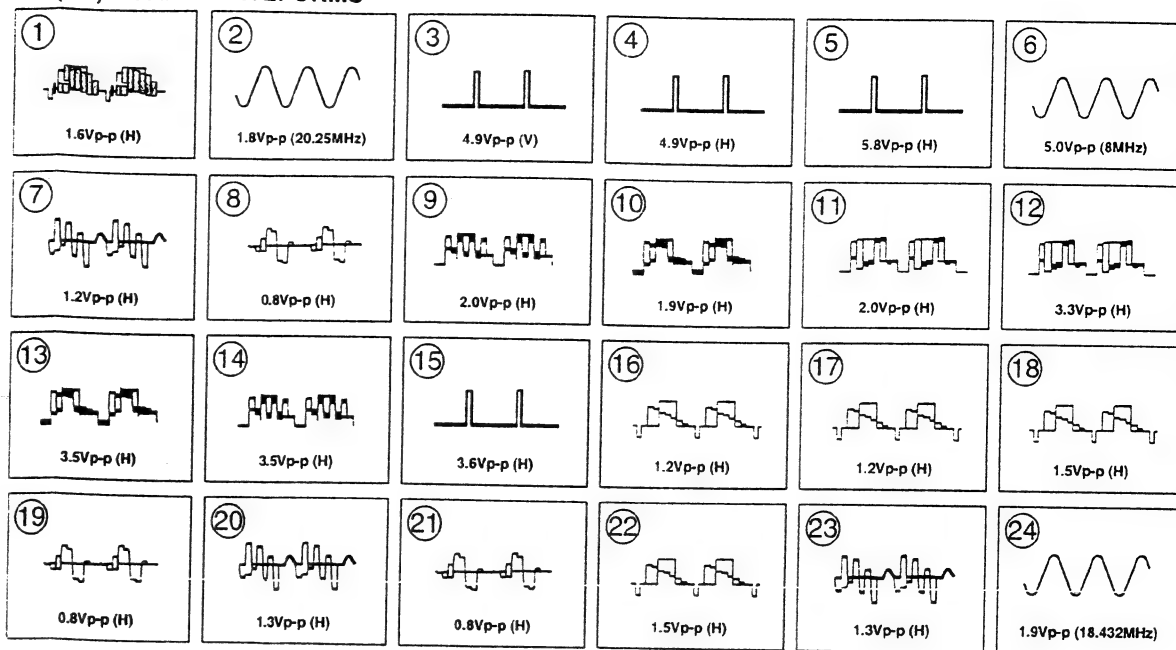
B (2/3) BOARD : IC202 NJM2234M



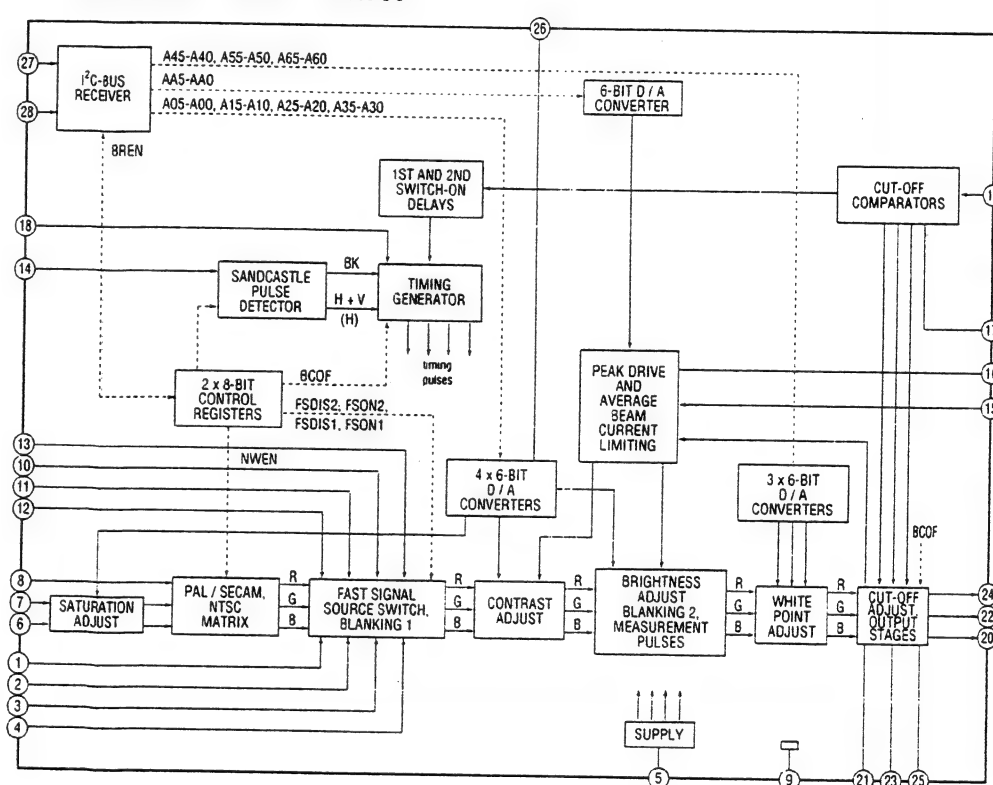
B (2/3) BOARD : IC208 CX20125



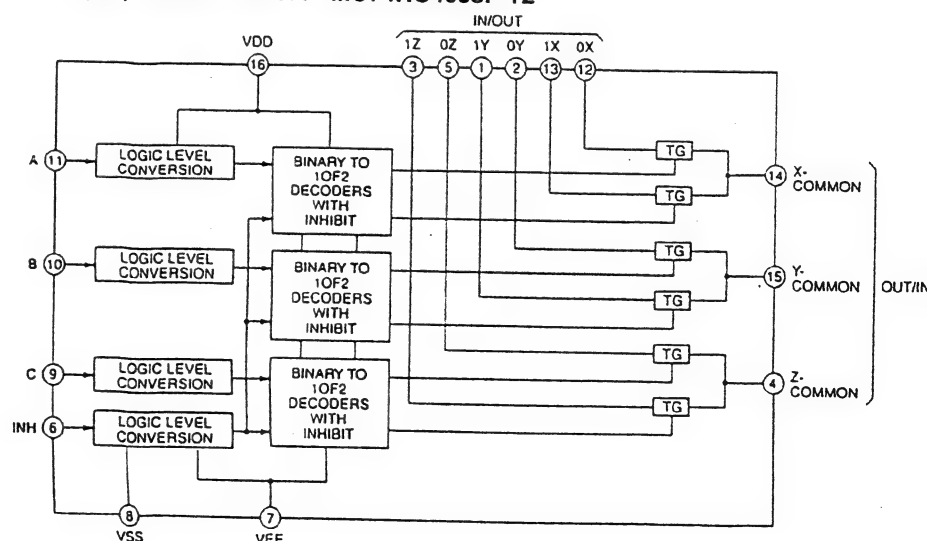
B (2/3) BOARD WAVEFORMS



B (2/3) BOARD : IC206 TDA4780



B (2/3) BOARD : IC211 MC74HC4053F-T2

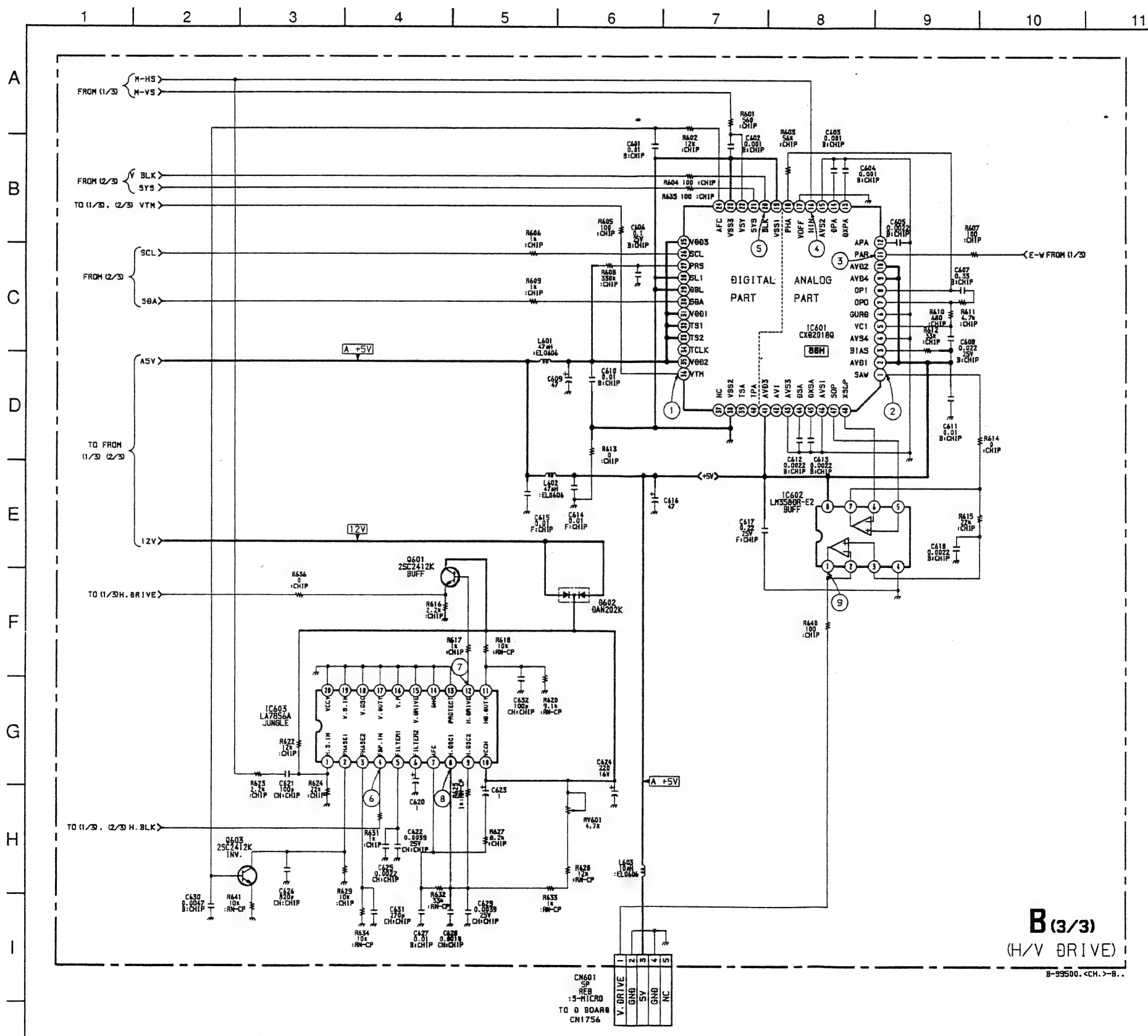


Schematic diagrams

← B (2/3) board

Schematic diagrams

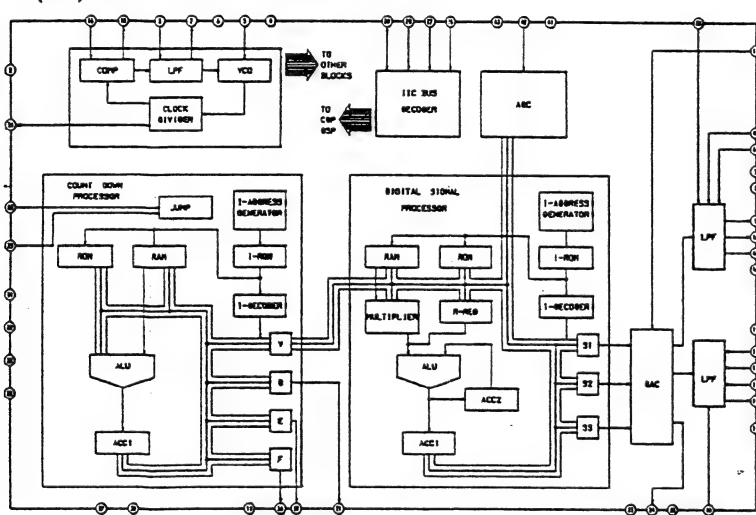
B (3/3) board →



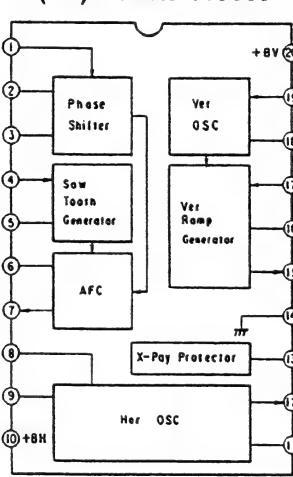
D BOARD

DIODE		*	D1953		B-10
D1501	B-8	-	D1954	C-10	-
D1502	B-8	-	IC		
D1503	B-8	-	IC1501	B-8	-
D1505	A-5	-	IC1501	D-4	-
D1551	C-6	-	IC1602	D-2	-
D1552	A-6	-	IC1701	B-10	-
D1553	A-6	-	IC1702	B-10	-
D1601	E-4	-	IC1801	E-7	-
D1602	E-5	-	IC1802	C-9	-
D1603	C-1	-	IC1803	C-5	-
D1604	D-1	-	IC1804	C-6	-
D1803	C-9	-	IC1805	E-8	-
D1812	B-5	-	IC1806	C-8	-
D1814	B-5	-	IC1807	E-5	-
D1825	D-6	-	IC1808	D-5	-
D1826	D-5	-	IC1809	E-10	-
D1827	D-7	-	IC1931	C-7	-
D1931	C-7	-	IC1932	C-10	-
D1932	C-7	-	TRANSISTOR		
D1934	C-7	-	Q1501	B-8	-
D1935	C-7	-	Q1502	B-9	-
D1936	C-10	-	Q1551	C-6	-
D1937	C-10	-	Q1552	C-6	-
D1942	D-7	-	Q1701	B-10	-
D1945	C-10	-	Q1801	D-6	-
D1946	D-10	-	Q1802	C-10	-
D1947	D-10	-	Q1803	B-5	-
D1948	C-7	-	Q1804	D-6	-
D1951	D-7	-	Q1805	D-5	-

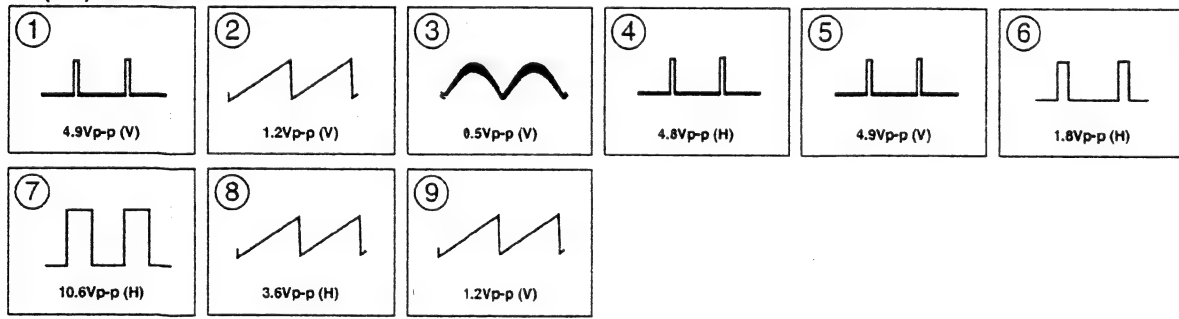
B (3/3) BOARD : IC601 CXD2018Q



B (3/3) BOARD : IC603 LA7856A



B (3/3) BOARD WAVEFORMS



B (3/3) BOARD IC VOLTAGE LIST

IC601				IC602				IC603			
1	2.2	19	GND	41	5.3	4	0.9	1	7.7	19	GND
2	5.3	20	0.6	43	GND	5	4.0	2	8.3	20	GND
3	1.8	21	0	44	1.6	6	3.2	3	8.4		
4	GND	22	0.2	45	1.6	7	6.3				
5	2.4	23	0	46	GND	8	6.3				
6	GND	24	1.3	47	1.9	9	5.9				
7	2.4	25	5.3	48	1.9	10	12.0				
8	2.7	26	4.9	1	2.2	11	6.0				
9	5.3	27	5.1	2	2.2	12	4.7				
10	5.3	28	GND	3	2.2	13	GND				
11	2.2	29	GND	4	GND	14	GND				
12	2.2	30	4.9	5	1.9	15	GND				
13	1.6	31	5.3	6	1.9	16	GND				
14	1.6	32	5.3	7	2.1	17	GND				
15	GND	33	5.3	8	5.3	18	GND				
16	0.4	35	5.3	9	5.3	19	GND				
17	GND	36	0.5			20	GND				
18	2.7	38	GND								

All Voltage are in V.
Pin numbers which are not described are not used.

B (3/3) BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q601	4.7	12.0	4.2
Q603	1.3	8.3	0.7

All voltages are in V.

B BOARD

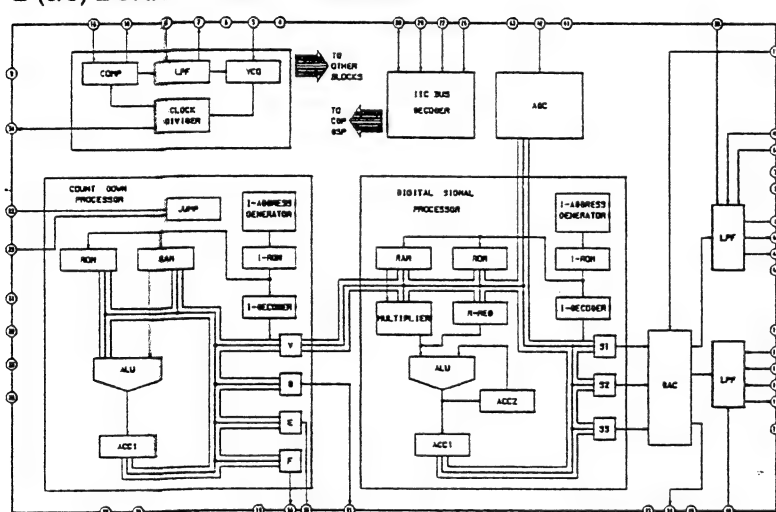
DIODE		*	Q11		F-3	Q232		D-6
D1	F-4	⑩	Q12	F-10	①	Q233	D-8	①
D2	F-4	⑩	Q13	G-4	①	Q234	D-6	①
D3	E-9	⑧	Q14	E-4	②	Q235	D-6	①
D4	G-10	⑧	Q15	E-4	②	Q236	F-8	①
D201	G-8	⑧	Q16	E-3	②	Q237	E-6	①
D202	G-8	⑧	Q17	G-4	②	Q238	E-8	①
D203	G-8	⑧	Q18	G-10	①	Q239	E-8	①
D204	G-8	⑧	Q19	F-10	①	Q240	D-6	①
D205	G-8	⑧	Q20	G-10	①	Q241	E-6	①
D206	F-6	⑧	Q22	G-10	①	Q242	D-8	①
D207	F-6	⑧	Q23	G-4	②	Q243	D-9	①
D208	G-5	⑧	Q24	G-4	②	Q244	E-8	①
D209	E-6	⑧	Q25	G-4	②	Q245	D-8	①
D210	E-6	⑧	Q26	G-10	①	Q246	E-5	①
D211	B-5	⑧	Q27	G-11	①	Q247	A-10	①
D212	B-9	⑧	Q28	G-11	①	Q248	A-11	①
D215	G-5	⑧	Q29	F-11	①	Q249	B-11	①
D217	F-7	⑧	Q30	G-10	①	Q250	A-12	①
D218	E-6	⑧	Q32	F-11	①	Q251	A-12	①
D220	E-6	⑧	Q33	E-11	①	Q252	D-8	①
D221	D-6	⑧	Q34	E-11	①	Q253	B-11	①
D222	A-10	⑧	Q35	E-3	②	Q254	D-9	①
D223	D-8	⑧	Q36	F-2	②	Q255	E-5	①
D224	C-1	⑧	Q37	F-2	②	Q256	B-11	①
D225	C-2	⑧	Q38	F-2	②	Q257	D-6	①
D226	D-4	⑧	Q41	G-11	①	Q258	D-4	①
D227	E-4	⑧	Q42	G-12	①	Q259	E-5	①
D602	D-10	⑧	Q43	G-8	①	Q260	C-3	①
D603	D-11	⑧	Q44	G-8	①	Q261	C-11	①
IC			Q45	G-8	①	Q262	E-5	①
IC1	G-4	⑧	Q46	E-2	②	Q263	A-11	①
IC2	G-9	⑧	Q47	E-9	①	Q264	C-2	①
IC3	F-4,F-9	⑧	Q48	E-9	①	Q265	A-11	①
IC4	G-11	⑧	Q49	E-9	①	Q266	A-11	①
IC5	E-4	⑧	Q52	G-8	①	Q267	B-11	①
IC6	F-2	⑧	Q201	B-8	①	Q268	B-11	①
IC7	F-2	⑧	Q202	G-8	①	Q269	C-12	①
IC8	G-2,G-11	⑧	Q203	G-6	②	Q270	B-2	①
IC10	F-3	⑧	Q204	G-6	②	Q271	B-2	①
IC201	B-6	⑧	Q205	G-6	②	Q272	B-11	①
IC202	G-6	⑧	Q206	G-8	②	Q273	B-12	①
IC203	A-6	⑧	Q207	G-6	②	Q274	B-12	①
IC204	A-8	⑧	Q208	G-7	②	Q275	B-12	①
IC205	C-9	⑧	Q209	G-8	①	Q276	C-8	①
IC206	F-6,F-8	⑧	Q210	G-8	①	Q277	C-9	①
IC207	B-5	⑧	Q211	G-7	①	Q278	D-9	①
IC208	D-5,D-9	⑧	Q212	G-6	②	Q279	B-9	①
IC209	B-3	⑧	Q213	G-7	①	Q280	D-4	①
IC210	D-5	⑧	Q214	F-6	②	Q281	E-4	①
IC211	E-5	⑧	Q215	D-7	①	Q282	D-4	①
IC212	B-2	⑧	Q216	D-8	②	Q286	C-2	①
IC213	B-10	⑧	Q217	D-6	②	Q287	C-2	①
IC214	D-4	⑧	Q218	E-7	①	Q301	B-9	①
IC601	D-2	⑧	Q219	D-7	①	Q302	A-11	①
IC602	E-2	⑧	Q220	D-6	②	Q303	A-11	①
IC603	E-3,E-10	⑧	Q221	E-6	②	Q304	C-10	①
TRANSISTOR			Q222	B-8	①	Q601	E-11	①
Q1	F-9	①	Q223	D-6	②	Q602	D-11	①
Q2	G-9	①	Q225	D-9	②	VARIABLE RESISTOR		
Q3	G-9	①	Q226	B-5	②	RV1	F-2,F-12	①
Q6	F-8	①	Q227	D-8	①	RV2	F-2,F-12	①
Q7	F-9	①	Q228	D-6	②	RV601	D-3,D-10	①
Q8	F-10	①	Q229	D-6	②			
Q9	F-10	①	Q230	D-8	①			
Q10	F-4	②	Q231	D-8	①			

D BOARD

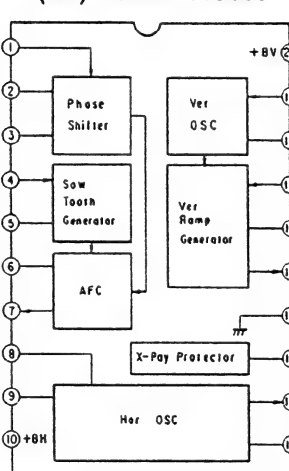
DIODE	*	D1953	B-10	-
D1501	B-8	D1954	C-10	-
D1502	B-8			
D1503	B-8			
D1505	A-5			
D1551	C-6			
D1552	A-6			
D1553	A-6			
D1601	E-4			
D1602	E-5			
D1603	C-1			
D1604	D-1			
D1803	C-9			
D1812	B-5			
D1814	B-5			
D1825	D-6			
D1826	D-5			
D1827	D-7			
D1931	C-7			
D1932	C-7			
D1934	C-7			
D1935	C-7			
D1936	C-10			
D1937	C-10			
D1942	D-7			
D1945	C-10			
D1946	D-10			
D1947	D-10			
D1948	C-7			
D1951	D-7			

TRANSISTOR	*	Q1501	B-8	①
		Q1502	B-9	①
		Q1551	C-6	①
		Q1552	C-6	①
		Q1701	B-10	①
		Q1801	D-6	①
		Q1802	C-10	①
		Q1803	B-5	-
		Q1804	D-6	①
		Q1905	D-5	-

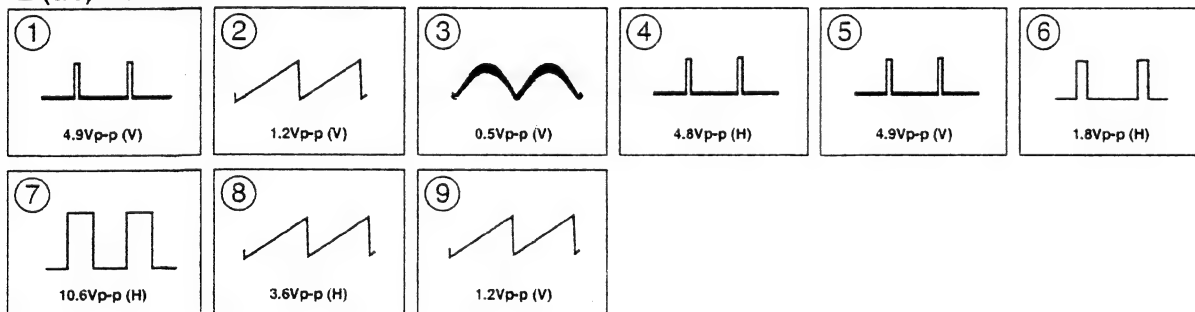
B (3/3) BOARD : IC601 CXD2018Q



B (3/3) BOARD : IC603 LA7856A



• B (3/3) BOARD WAVEFORMS



B (3/3) BOARD IC VOLTAGE LIST

IC601	1	2.2	19	GND	41	5.3	4	0.9
	2	5.3	20	0.6	43	GND	5	4.0
	3	1.8	21	0	44	1.6	6	3.2
	4	GND	22	0.2	45	1.6	7	6.3
	5	2.4	23	0	46	GND	8	6.3
	6	GND	24	1.3	47	1.9	9	5.9
	7	2.4	25	5.3	48	1.9	10	12.0
	8	2.7	26	4.9	49	1.9	11	6.0
	9	5.3	27	5.1	50	1.9	12	4.7
	10	5.3	28	GND	51	2.2	13	GND
	11	2.2	29	GND	52	2.2	14	GND
	12	2.2	30	4.9	53	1.9	15	GND
	13	1.6	31	5.3	54	1.9	16	GND
	14	1.6	32	5.3	55	2.1	17	GND
	15	GND	33	5.3	56	5.3	18	GND
	16	0.4	34	5.3	57	7.7	19	GND
	17	GND	35	0.5	58	8.3	20	GND
	18	2.7	36	GND	59	8.4		

All Voltage are in V.
Pin numbers which are not described are not used.

B (3/3) BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q601	4.7	12.0	4.2
Q603	1.3	9.3	0.7

All voltages are in V.

B BOARD

DIODE	*	Q11	F-3	②	Q232	D-6	③
D1	F-4	Q12	F-10	④	Q233	D-8	④
D2	F-4	Q13	G-4	⑤	Q234	D-6	⑤
D3	E-9	Q14	E-4	⑥	Q235	D-6	⑥
D4	G-10	Q15	E-4	⑦	Q236	F-8	⑦
D201	G-8	Q16	E-3	⑧	Q237	E-6	⑧
D202	G-8	Q17	G-4	⑨	Q238	E-8	⑨
D203	G-8	Q18	G-10	⑩	Q239	E-8	⑩
D204	G-8	Q19	F-10	⑪	Q240	D-6	⑪
D205	G-8	Q20	G-10	⑫	Q241	E-6	⑫
D206	F-6	Q22	G-10	⑬	Q242	D-8	⑬
D207	F-6	Q23	G-4	⑭	Q243	D-9	⑭
D208	G-6	Q24	G-4	⑮	Q244	E-8	⑮
D209	E-6	Q25	G-4	⑯	Q245	D-8	⑯
D210	E-6	Q26	G-10	⑰	Q246	E-5	⑰
D211	B-5	Q27	G-11	⑱	Q247	A-10	⑱
D212	B-9	Q28	G-11	⑲	Q248	A-11	⑲
D215	G-5	Q29	F-11	⑳	Q249	B-11	⑳
D217	F-7	Q30	G-10	㉑	Q250	A-12	㉑
D218	E-6	Q32	F-11	㉒	Q251	A-12	㉒
D220	E-6	Q33	E-11	㉓	Q252	D-8	㉓
D221	D-6	Q34	E-11	㉔	Q253	B-11	㉔
D222	A-10	Q35	E-3	㉕	Q254	D-9	㉕
D223	D-8	Q36	F-2	㉖	Q255	E-5	㉖
D224	C-1	Q37	F-2	㉗	Q256	B-11	㉗
D225	C-2	Q38	F-2	㉘	Q257	D-8	㉘
D226	D-4	Q41	G-11	㉙	Q258	D-4	㉙
D227	E-4	Q42	G-12	㉚	Q259	E-5	㉚
D602	D-10	Q43	G-8	㉛	Q260	C-3	㉛
D603	D-11	Q44	G-8	㉜	Q261	C-11	㉜
		Q45	G-8	㉝	Q262	E-5	㉝
		Q46	E-2	㉞	Q263	A-11	㉞
		Q47	E-9	㉟	Q264	C-2	㉟
		Q48	E-9	㊱	Q265	A-11	㊱
		Q49	E-9	㊲	Q266	A-11	㊲
		Q52	G-8	㊳	Q267	B-11	㊳
		Q201	B-8	㊴	Q268	B-11	㊴
		Q202	G-8	㊵	Q269	C-12	㊵
		Q203	G-6	㊶	Q270	B-2	㊶
		Q204	G-6	㊷	Q271	B-2	㊷
		Q205	G-6	㊸	Q272	B-11	㊸
		Q206	G-8	㊹	Q273	B-12	㊹
		Q207	G-6	㊺	Q274	B-12	㊺
		Q208	G-7	㊻	Q275	B-12	㊻
		Q209	G-8	㊼	Q276	C-8	㊼
		Q210	G-8	㊽	Q277	C-9	㊽
		Q211	G-7	㊾	Q278	D-9	㊾
		Q212	G-6	㊿	Q279	B-9	㊿
		Q213	G-7	①	Q280	D-4	①
		Q214	F-6	②	Q281	E-4	②
		Q215	D-7	③	Q282	D-4	③
		Q216	D-8	④	Q286	C-2	④
		Q217	D-6	⑤	Q287	C-2	⑤
		Q218	E-7	⑥	Q301	B-9	⑥
		Q219	D-7	⑦	Q302	A-11	⑦
		Q220	D-6	⑧	Q303	A-11	⑧
		Q221	E-6	⑨	Q304	C-10	⑨
		Q222	B-8	⑩	Q601	E-11	⑩
		Q223	D-6	⑪	Q602	D-11	⑪
		Q225	D-9	⑫			
		Q226	B-5	⑬			
		Q227	D-8	⑭			
		Q228	D-6	⑮			
		Q229	D-6	⑯			
		Q230	D-8	⑰			
		Q231	D-8	⑱			

TRANSISTOR		*	Q222	B-8	⑨	Q601	E-11	⑩
Q1	F-9	①	Q223	O-6	②	Q602	D-11	⑪
Q2	G-9	②	Q225	D-9	③	VARIABLE RESISTOR		
Q3	G-9	③	Q226	B-5	④	RV1	F-2,F-12	⑫
Q6	F-8	④	Q227	O-8	⑤	RV2	F-2,F-12	⑬
Q7	F-9	⑤	Q228	O-6	⑥	RV601	D-3,D-10	⑭
Q8	F-10	⑥	Q229	D-6	⑦			
Q9	F-10	⑦	Q230	O-8	⑧			
Q10	F-4	⑧	Q231	D-8	⑩			

VARIABLE RESISTOR	*	RV1	F-2,F-12	①
		RV2	F-2,F-12	②
		RV601	D-3,D-10	③

[RGB CONVERTER, REGI CONTROL]

1	2	3	4	5	6	7	8	9	10	11
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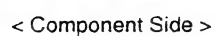
[AUDIO/TEXT PROCESSOR,
SYSTEM CONTROL, RGB MATRIX]

[H/V DRIVE]

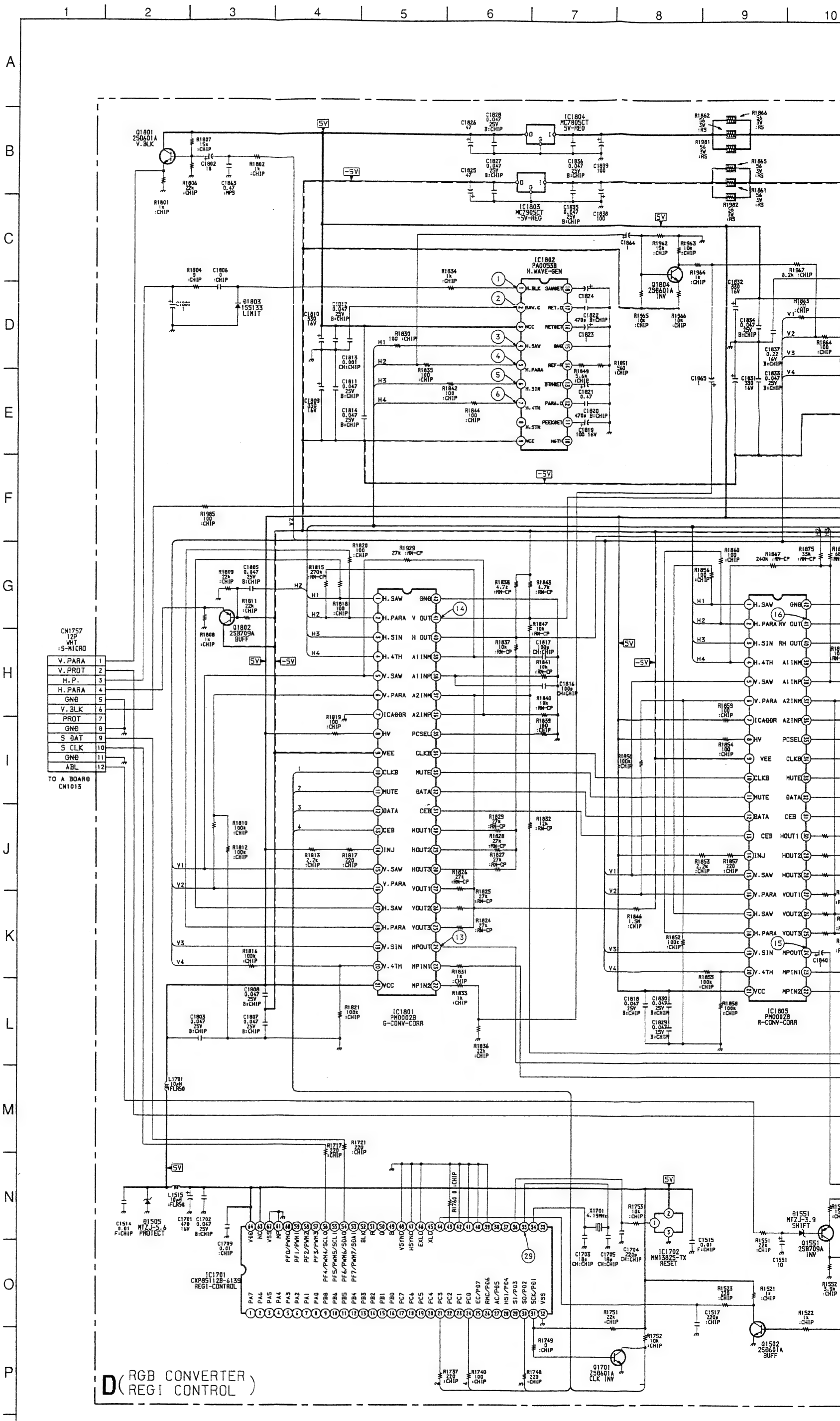
NOTE:

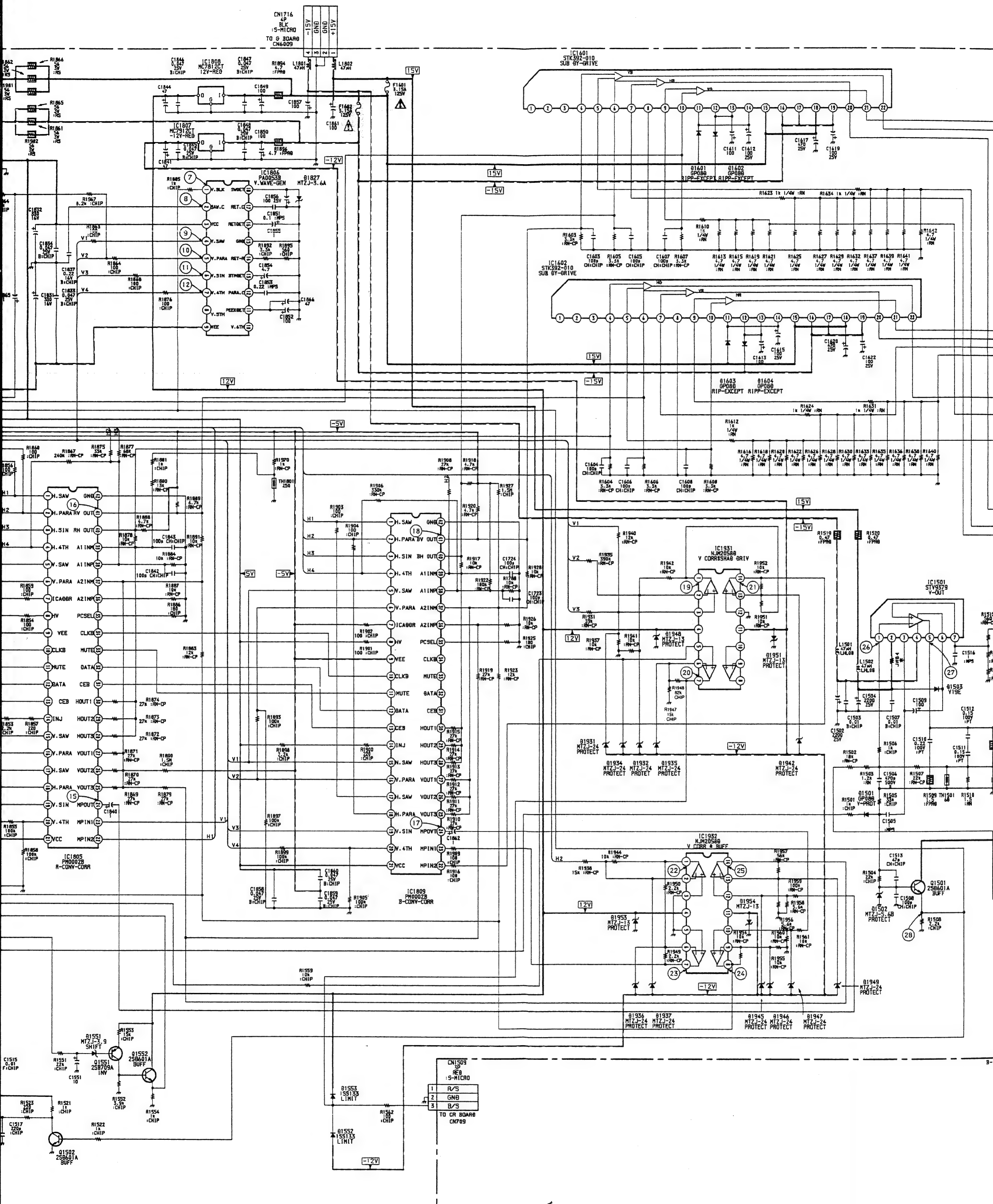
- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

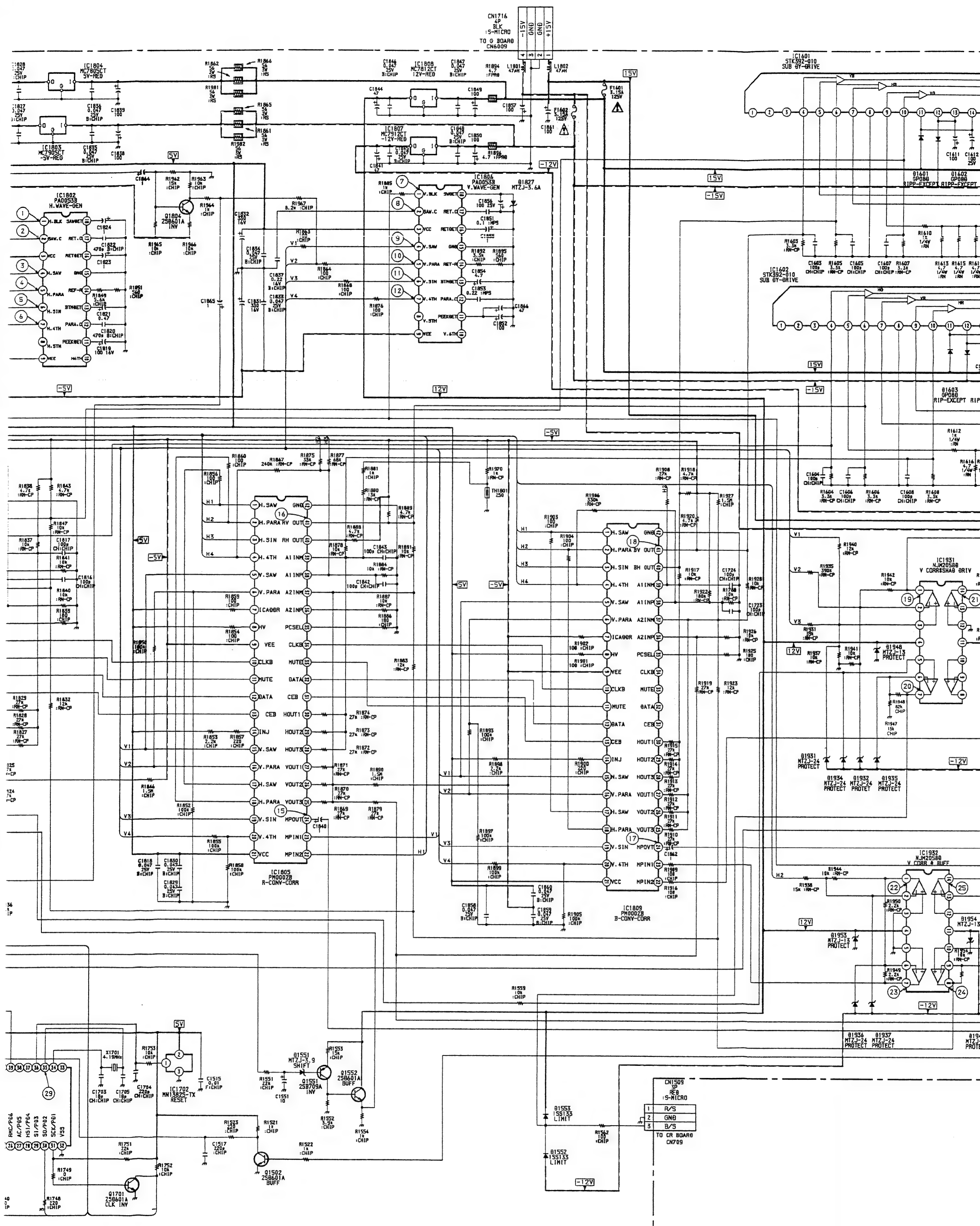
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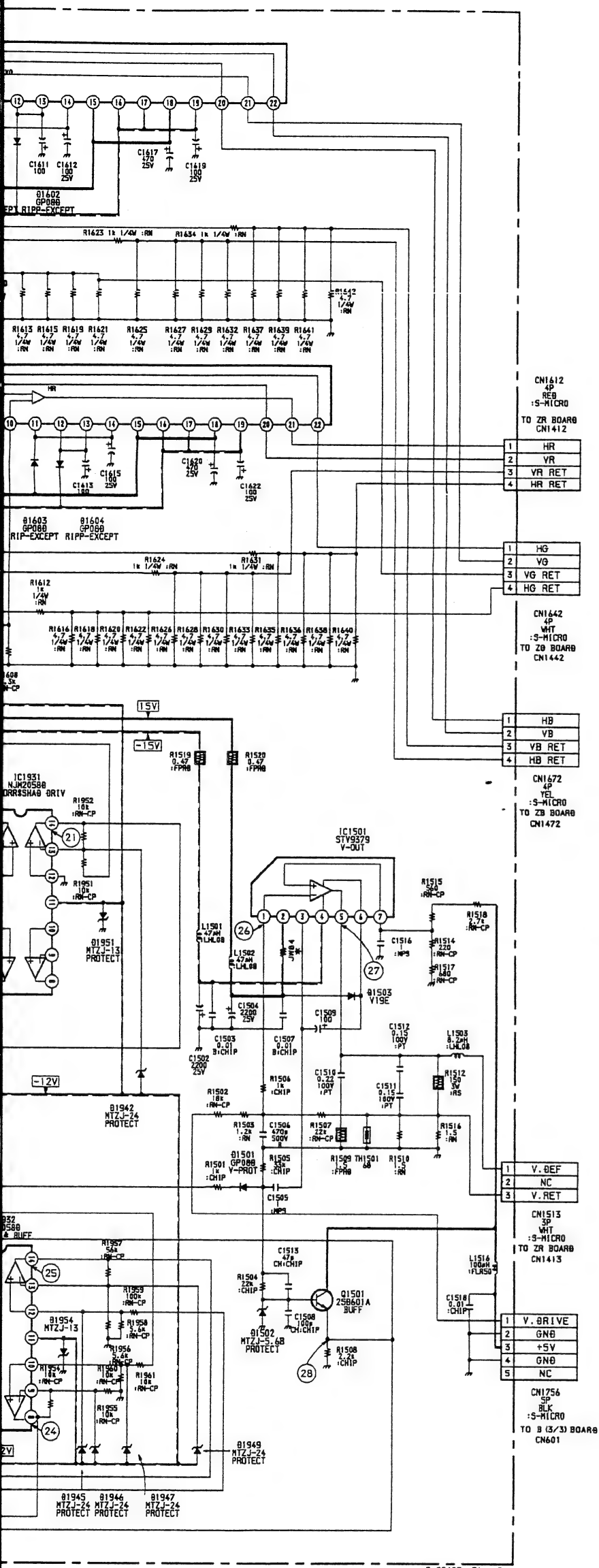


< Conductor Side >







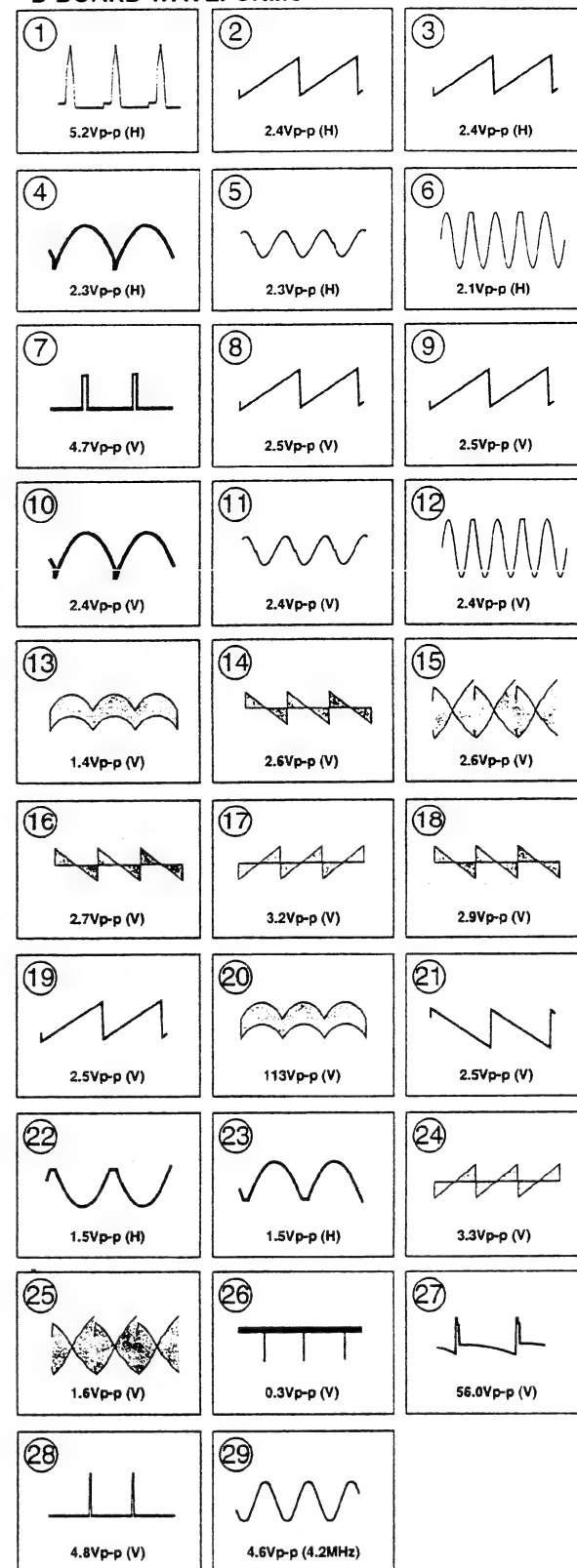


D BOARD IC VOLTAGE LIST

IC1501	1	1.2	IC1702	62	GND	IC1804	0	-5.2	IC1809	G	GND
	2	14.8		63	5.3		1	11.9		O	12.7
	3	-13.3		64	5.3		G	GND		1	0
	4	-14.7		1	5.4		O	5.4		2	-0.9
	5	0.5	IC1801	2	5.3	IC1805	1	0		3	0
	6	14.8		3	GND		2	-0.8		4	-1.1
	7	1.2		1	0		3	0		5	0
	4	0		2	-0.9		4	-1.2		6	-0.4
IC1601	5	0		3	0		5	0		7	-5.2
	6	0.2		4	-1.2		6	-0.4		8	5.4
	7	0.2		5	0		7	5.4		9	-5.2
	8	0		6	-0.4		8	5.4		10	5.2
	9	0		7	0		9	-5.2		11	5.3
	10	0		8	5.4		10	5.2		12	0.2
	11	14.2		9	-5.2		11	5.4		13	5.2
	12	-14.1		10	5.2		12	0		14	-2.2
	13	-14.1		11	5.4		13	5.2		15	0
	14	14.2		12	0.2		14	-2.1		16	-0.9
	15	14.8		13	5.2		15	0		17	0
	16	-14.7		14	-2.1		16	-0.8		18	-0.8
	17	-14.7		15	0		17	0		19	0
	18	14.8		16	-0.9		18	-0.8		20	-0.5
	19	-14.7		17	0		19	0		21	5.4
	20	0.4		18	-0.9		20	-0.5		22	0
IC1602	21	0.2		19	0		21	5.4		23	-0.6
	22	0		20	-0.5		22	0		24	0
	4	0.2		21	5.3		23	0		25	0.4
	5	0		22	0		24	0		26	0
	6	0.3		23	1.0		25	-0.4		27	0
	7	0.3		24	0		26	0		28	0
	8	0		25	0		27	0		29	-0.2
	9	-0.2		26	0		28	0		30	1.1
	10	-0.1		27	0		29	0		35	0
	11	14.2		28	0		30	-0.5		36	0
	12	-14.1		29	0		31	5.2		37	0
	13	-14.1		30	0		32	0		38	0
	14	14.2		31	5.2		33	5.4		39	0
	15	14.8		32	0.2		34	5.2		40	0.3
	16	-14.8		33	5.4		35	0		41	0
	17	-14.8		34	5.2		36	0		42	GND
	18	14.8		35	0		37	0	IC1931	1	0
	19	-14.7		36	0		38	0		2	0
	20	0.4		37	0		39	0		3	0
	21	-0.2		38	0		40	-0.2		4	12.7
IC1701	22	0.2		39	0	IC1806	41	0.3		5	0
	23	5.4		40	0.2		42	GND		6	0
	24	5.2		41	0		1	0.2		7	-0.2
	30	0.2		42	GND		2	1.4		11	-12.7
	31	0.2	IC1802	1	0.6		3	5.3		12	GND
	32	GND		2	1.4		4	0		13	0
	34	2.7		3	5.3		5	-0.9		14	0
	35	2.4		4	0		6	0		IC1932	1
	36	5.4		5	-0.9		7	-1.1		2	0
	39	0		6	0		8	0		3	GND
	40	0		7	-1.1		9	-5.2		4	12.7
	41	0		8	0		10	0.2		5	0
	42	0		9	-5.2		11	0.6		6	0
	43	0		10	0.3		12	-0.9		7	-0.6
	44	4.7		11	0.6		13	0.3		8	0
	46	0		12	-0.9		14	1.3		9	0
	47	0		13	0.5		15	GND		10	0
	48	0		14	1.3		16	-1.7		11	-12.7
	54	4.9		15	GND		17	1.4		12	0
	56	4.9		16	-0.7		18	-1.7		13	0
	58	0		17	1.4	IC1807	1	-14.6		14	0
	59	0		18	-1.6		G	GND			
	60	0		1	-11.4		O	-12.7			
	61	GND		G	GND		IC1808	1		14.7	All Voltage are in

All Voltage are in V.
scribed are not used.

• D BOARD WAVEFORMS



D BOARD TRANSISTOR VOLTAGE LIST

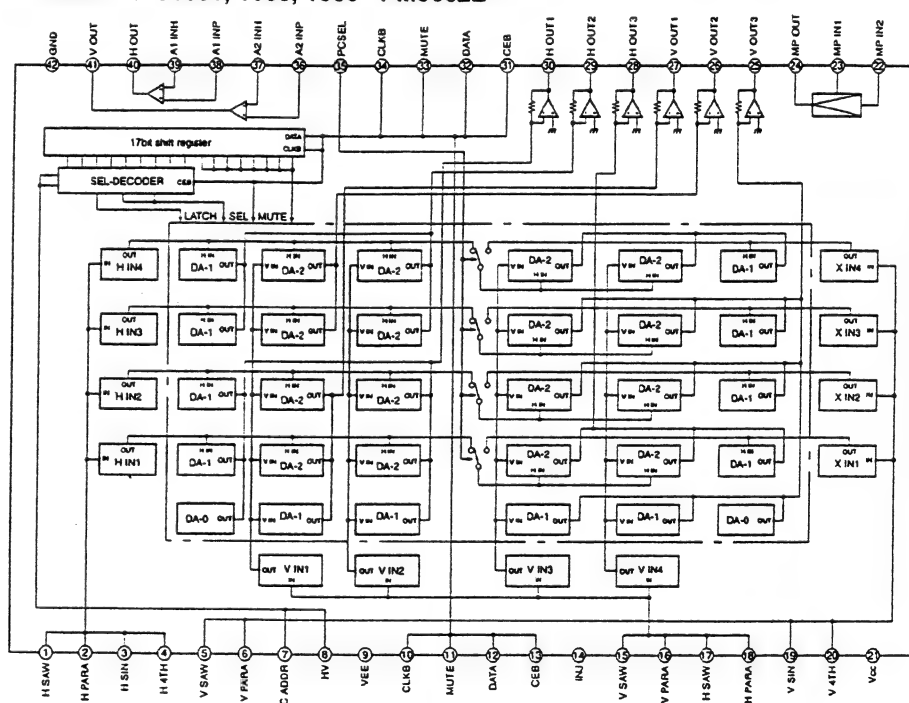
	B	C	E
Q1501	-0.5	5.2	0.2
Q1502	0	5.2	GND
Q1551	5.9	1.6	6.6
Q1552	1.6	12.7	1.0
Q1701	0	5.2	GND
Q1801	3.4	5.4	2.7
Q1802	-2.5	-5.2	-1.9
Q1803	0	0	GND
Q1804	-3.1	-1.1	-3.7
Q1805	0	0	GND

All Voltage are in V.

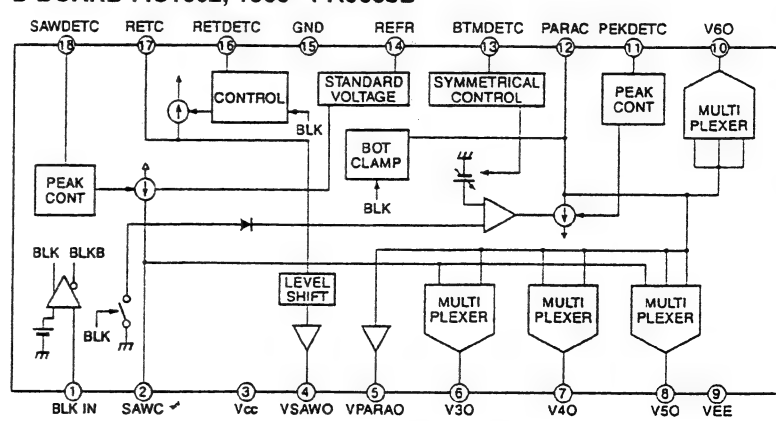
D BOARD * MARK LIST

	KP-E41MN11	KP-E53MN11
JW83	1.2K	JW (7.5)

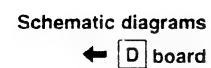
D BOARD : IC1801, 1805, 1809 PM0002B



D BOARD : IC1802, 1806 PA0053B



①	②	③	④	⑤	⑥	⑦
2.4Vp-p (H)	1.3Vp-p (H)	1.9Vp-p (H)	2.4Vp-p (H)	1.9Vp-p (H)	1.3Vp-p (H)	1.2Vp-p (H)



Schematic diagrams
U board →

U BOARD IC VOLTAGE LIST

IC2001	1	3.9	15	3.8	33	3.8
	2	3.9	16	3.8	35	3.8
	3	3.9	17	3.8	36	GND
	4	3.9	18	8.0	37	3.8
	5	3.9	19	4.5	38	3.8
	6	8.0	20	4.5	39	3.8
	7	3.8	21	GND	40	3.8
	8	3.8	23	3.8	42	3.8
	9	3.8	26	3.8	43	3.8
	10	3.8	28	3.8	44	9.4
	11	3.8	29	3.8	45	3.8
	12	8.0	30	3.8	46	3.8
	13	3.8	31	3.8	47	3.8
	14	3.8	32	3.8	48	3.8

All Voltage are in V.

U BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q2006	0	8.0	GND
Q2007	3.8	9.4	3.1
Q2009	3.8	5.3	3.1
Q2011	3.1	GND	3.7
Q2014	0	8.0	GND
Q2016	1.8	GND	2.5
Q2022	0	8.0	GND
Q2027	3.8	9.4	3.1
Q2028	3.8	9.4	3.1
Q2029	3.8	9.4	3.1
Q2030	3.8	9.4	3.1
Q2031	3.8	9.4	3.1
Q2032	3.8	GND	4.4
Q2033	4.5	9.4	3.9
Q2034	2.6	4.5	1.9
Q2035	4.5	9.4	3.9
Q2036	2.6	4.5	1.9
Q2038	7.9	0	8.3
Q2039	0	0	GND
Q2040	4.5	9.4	3.9
Q2041	0	0	GND
Q2043	2.6	4.5	1.9

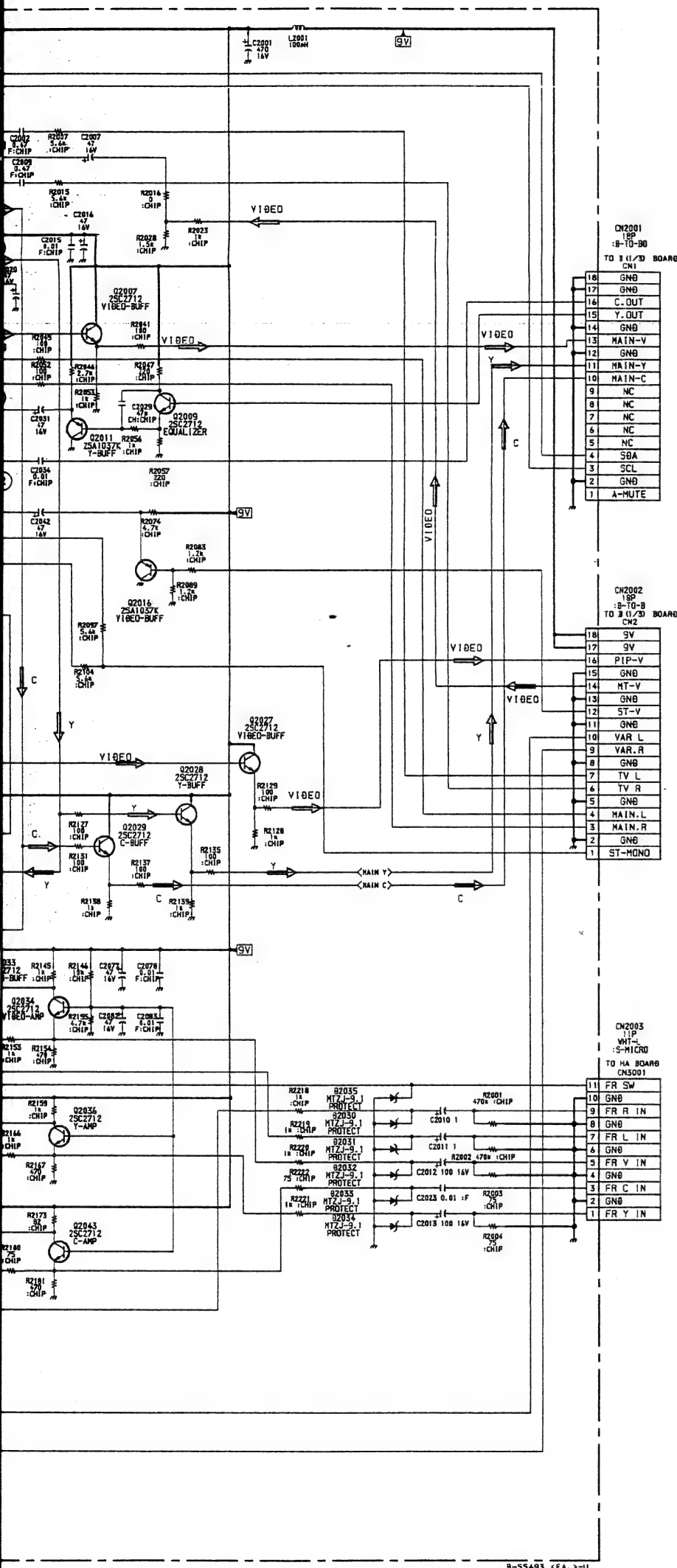
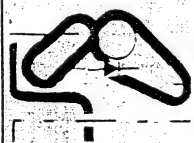
All Voltage are in V.

E BOARD

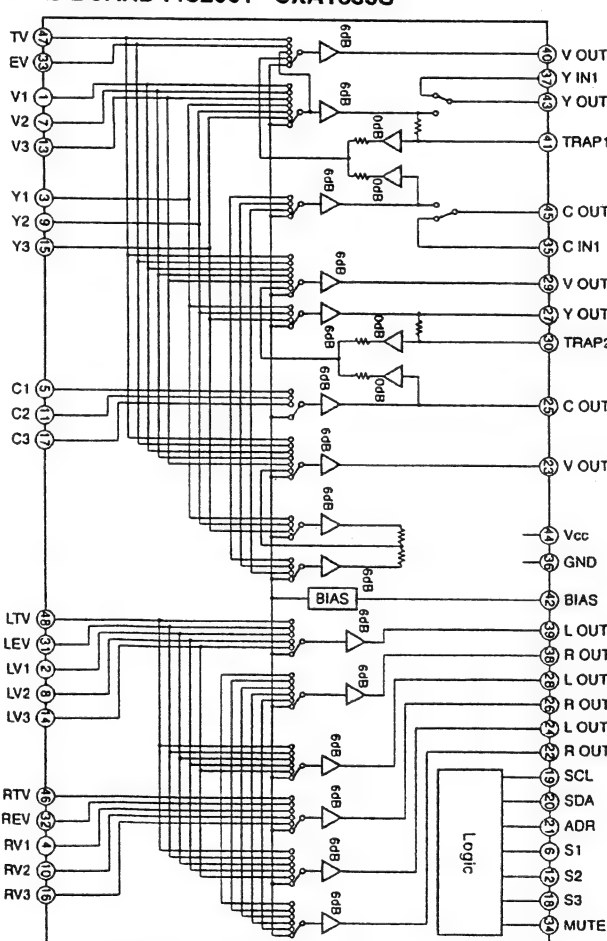
DIODE	*	D925	D-2	③
D801	C-7	D927	B-2	③
D802	C-7	D929	B-4	③
D803	D-5			
D804	A-10	IC		
D805	D-10	IC901	D-3	
D806	B-1	IC902	C-2	
D807	D-7	IC903	B-3	
D808	F-8	IC904	D-2	
D809	A-1	IC905	F-4	
		IC906	F-4	
D810	F-10			
D812	E-2	TRANSISTOR		*
D814	D-5	Q801	E-5	
D816	D-4	Q802	B-7	
D817	E-1	Q803	C-7	
D818	E-1	Q806	E-9	
D819	E-3	Q807	F-3	①
D901	C-2	Q808	F-7	①
D904	B-2	Q809	E-2	
D905	D-1	Q810	D-4	
D907	B-1	Q811	F-1	
D908	C-2	Q813	E-1	①
D909	B-7	Q901	C-3	①
D910	C-2	Q902	C-3	①
D911	C-2	Q903	C-3	①
D912	C-1	Q904	D-3	①
D913	B-3	Q905	D-3	①
D914	B-3	Q906	B-2	①
D915	B-4	Q907	D-3	
D916	A-3	Q908	B-1	①
D917	C-3	Q909	D-1	①
D918	B-4	Q910	A-4	①
D919	C-1	Q911	A-4	①
D920	A-5	Q912	A-2	①
D921	G-4	Q913	F-4	①
D922	F-4	Q914	C-2	①
D923	G-4	Q915	D-2	①
D924	D-3	Q916	B-4	①
		Q917	B-4	①

NOTE:

The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.



U BOARD : IC2001 CXA1855S

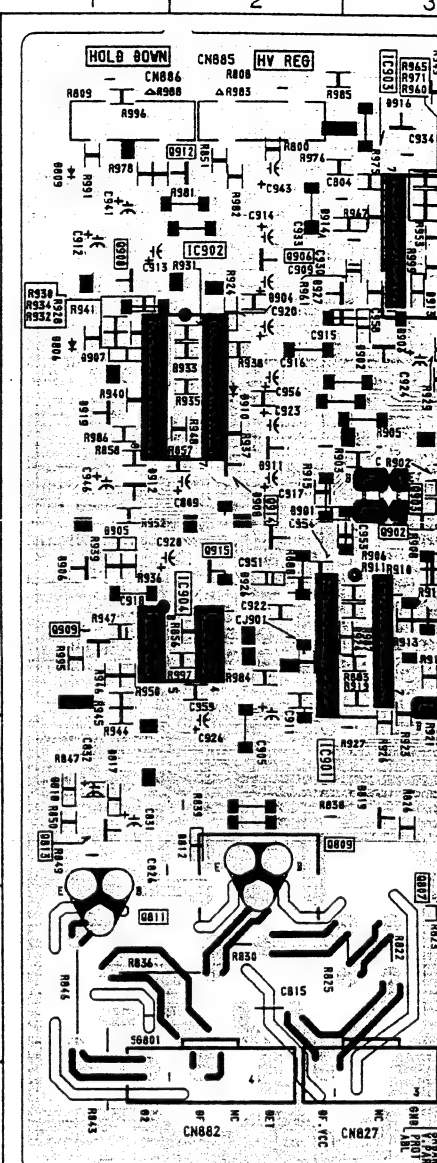


U BOARD

DIODE	*
D2001	G-2.G-9
D2002	G-2.G-9
D2003	F-2.G-9
D2004	G-3.G-8
D2005	G-4.G-7
D2006	G-5.G-7
D2007	F-2.F-9
D2008	F-2.F-9
D2009	F-2.F-9
D2010	F-2.F-9
D2011	E-3.E-8
D2012	G-5.G-6
D2013	E-2.E-9
D2014	F-2.F-9
D2015	E-2.E-9
D2016	E-4.E-8
D2017	E-4.E-7
D2018	E-4.E-7
D2019	E-2.E-9
D2020	E-3.E-9
D2021	E-3.E-8
D2022	E-4.E-7
D2023	C-5.C-6
D2024	D-7
D2027	G-5.G-6
D2028	H-5.H-6
D2030	B-1.B-10
D2031	B-2.B-10
D2032	B-1.B-10
D2033	C-1.C-10
D2034	C-1.C-10
D2035	B-1.B-10
D2036	H-7
D2037	G-7
IC	
IC2001	D-8
TRANSISTOR	*
Q2006	G-8
Q2007	C-8
Q2009	B-8
Q2011	B-8
Q2014	F-8
Q2016	C-8
Q2022	F-8
Q2027	D-8
Q2028	B-8
Q2029	B-8
Q2030	D-7
Q2031	D-7
Q2032	E-8
Q2033	B-9
Q2034	B-10
Q2035	C-10
Q2036	C-10
Q2038	E-6
Q2039	E-7
Q2040	C-10
Q2041	E-6
Q2043	C-10

- E BOARD -

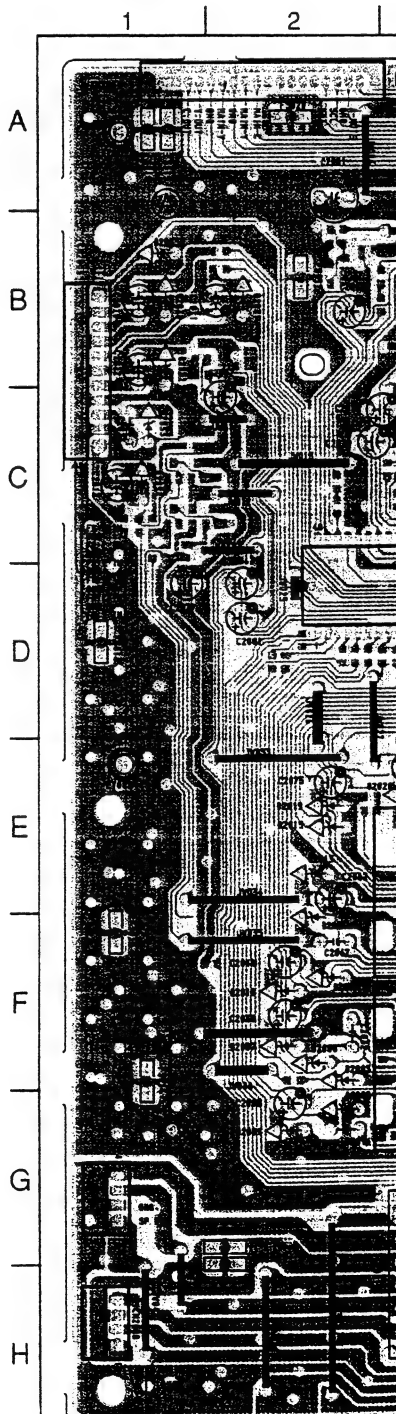
E [HV]

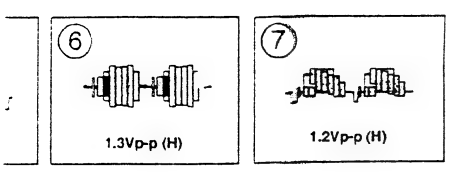


U

AV SW, EXT VIDEO/AUDIO IN, SPEAKER OUTPUT, MONITOR

- U BOARD -





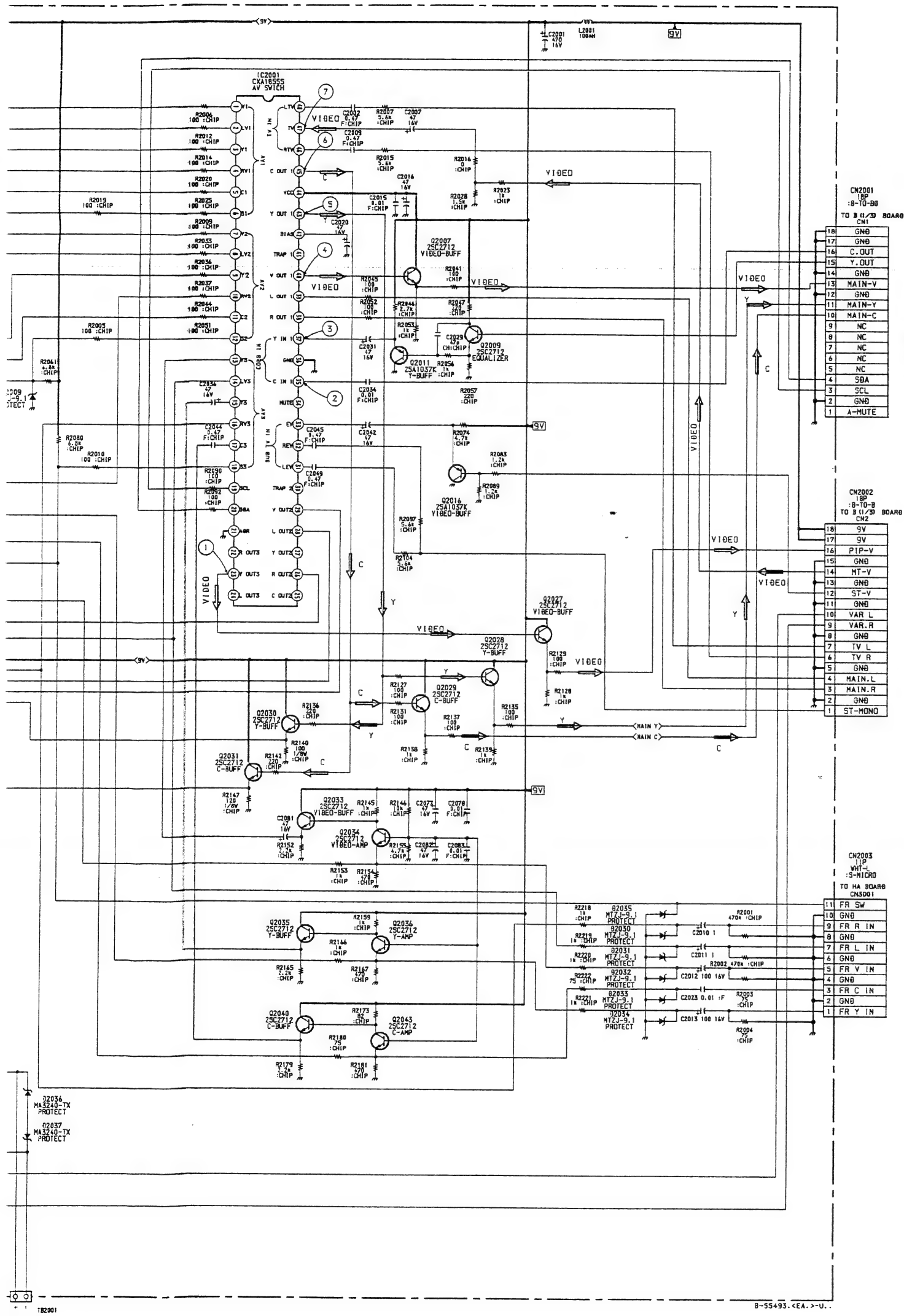
IC2001	1	3.9	15	3.8	33	3.8
	2	3.9	16	3.8	35	3.8
	3	3.9	17	3.8	36	GND
	4	3.9	18	8.0	37	3.8
	5	3.9	19	4.5	38	3.8
	6	8.0	20	4.5	39	3.8
	7	3.8	21	GND	40	3.8
	8	3.8	23	3.8	42	3.8
	9	3.8	26	3.8	43	3.8
	10	3.8	28	3.8	44	9.4
	11	3.8	29	3.8	45	3.8
	12	8.0	30	3.8	46	3.8
	13	3.8	31	3.8	47	3.8
	14	3.8	32	3.8	48	3.8

All Voltage are in V.

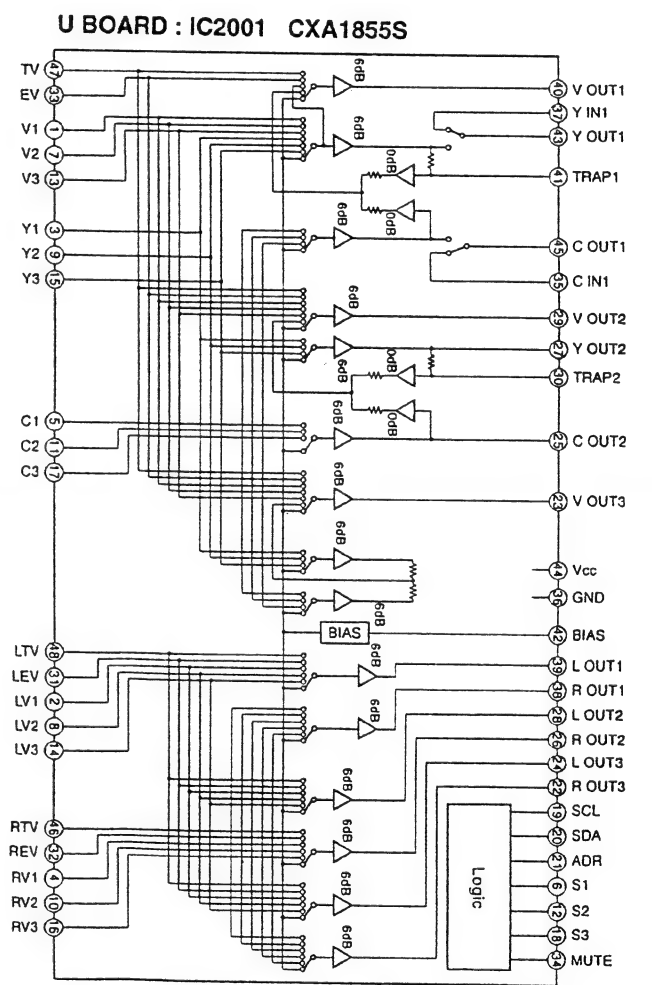
	B	C	E
Q2006	0	8.0	GND
Q2007	3.8	9.4	3.1
Q2009	3.8	5.3	3.1
Q2011	3.1	GND	3.7
Q2014	0	8.0	GND
Q2016	1.8	GND	2.5
Q2022	0	8.0	GND
Q2027	3.8	9.4	3.1
Q2028	3.8	9.4	3.1
Q2029	3.8	9.4	3.1
Q2030	3.8	9.4	3.1
Q2031	3.8	9.4	3.1
Q2032	3.8	GND	4.4
Q2033	4.5	9.4	3.9
Q2034	2.6	4.5	1.9
Q2035	4.5	9.4	3.9
Q2036	2.6	4.5	1.9
Q2038	7.9	0	8.3
Q2039	0	0	GND
Q2040	4.5	9.4	3.9
Q2041	0	0	GND
Q2043	2.6	4.5	1.9

All Voltage are in V.

DIODE	*	D926
D801	C-7	D927
D802	C-7	D929
D803	D-5	
D804	A-10	IC901
D805	D-10	IC902
D806	B-1	IC903
D807	D-7	IC904
D808	F-8	IC905
D809	A-1	IC906
D810	F-10	TRANS
D812	E-2	Q801
D814	D-5	Q802
D816	D-4	Q803
D817	E-1	Q806
D818	E-1	Q807
D819	E-3	Q808
D901	C-2	Q809
D904	B-2	Q810
D905	D-1	Q811
D907	B-1	Q813
D908	C-2	Q801
D909	B-7	Q802
D910	C-2	Q803
D911	C-2	Q804
D912	C-1	Q805
D913	B-3	Q806
D914	B-3	Q807
D915	B-4	Q808
D916	A-3	Q809
D917	C-3	Q810
D918	B-4	Q811
D919	C-1	Q812
D920	A-5	Q813
D921	G-4	Q814
D922	F-4	Q815
D923	G-4	Q816
D924	D-3	Q817

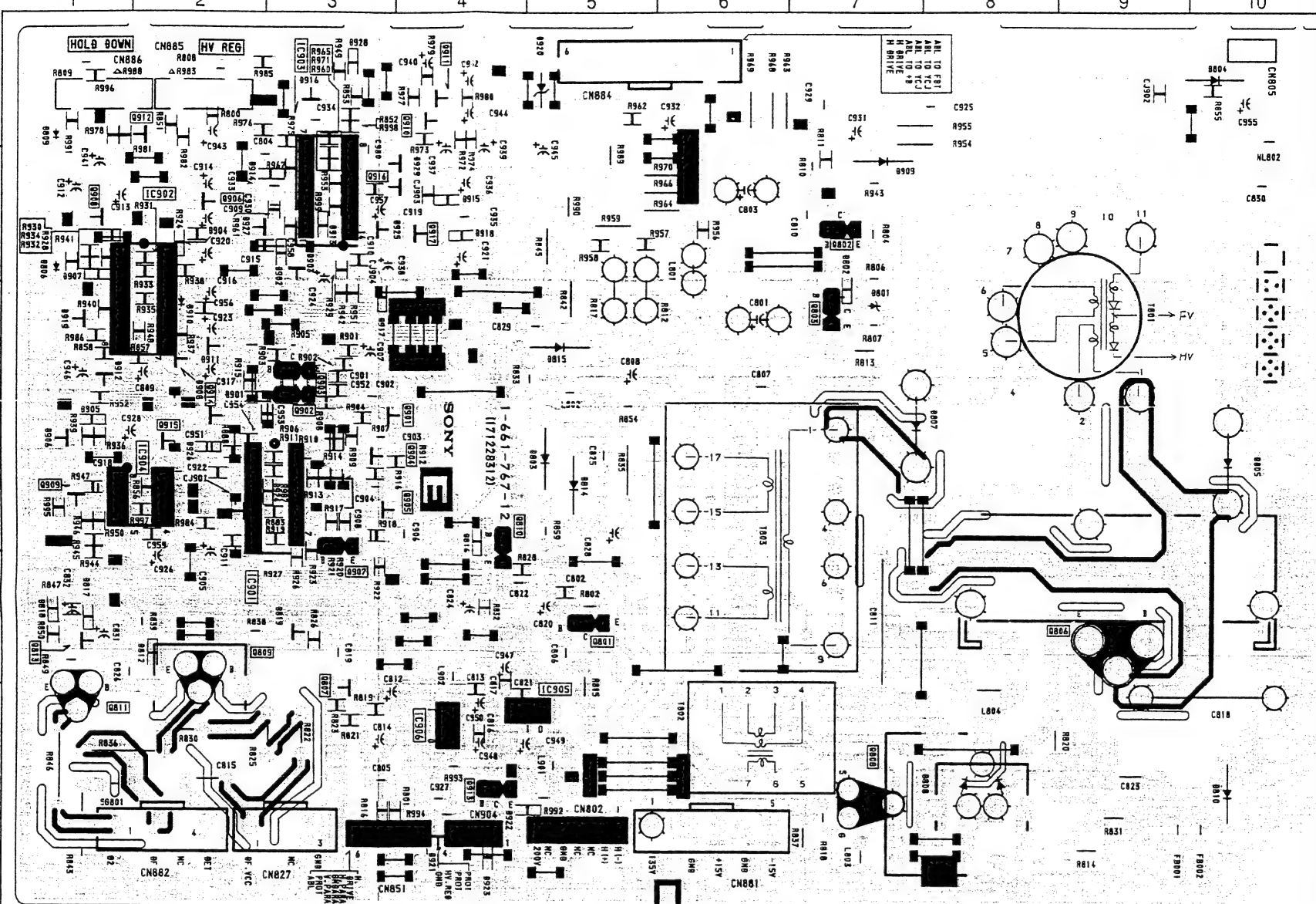


NOTE:
The circuit indicated as left contains high volt 600 Vp-p. Care must be paid to prevent an electric shock during inspection or repairing.



D922	D-2	③
D927	B-2	④
D929	B-4	④
IC		
C901	D-3	
C902	C-2	
C903	B-3	
C904	D-2	
C905	F-4	
C906	F-4	
TRANSISTOR		
Q801	E-5	
Q802	B-7	
Q803	C-7	
Q806	E-9	
Q807	F-3	
Q808	F-7	
Q809	E-2	
Q810	D-4	
Q811	F-1	
Q813	E-1	
Q901	C-3	
Q902	C-3	
Q903	C-3	
Q904	D-3	
Q905	D-3	
Q906	B-2	
Q907	D-3	
Q908	B-1	
Q909	D-1	
Q910	A-4	
Q911	A-4	
Q912	A-2	
Q913	F-4	
Q914	C-2	
Q915	D-2	
Q916	B-4	
Q917	B-4	

High voltage of over
an electric shock in



U [AV SW, EXT VIDEO/AUDIO INPUT,
SPEAKER OUTPUT, MONITOR OUTPUT]

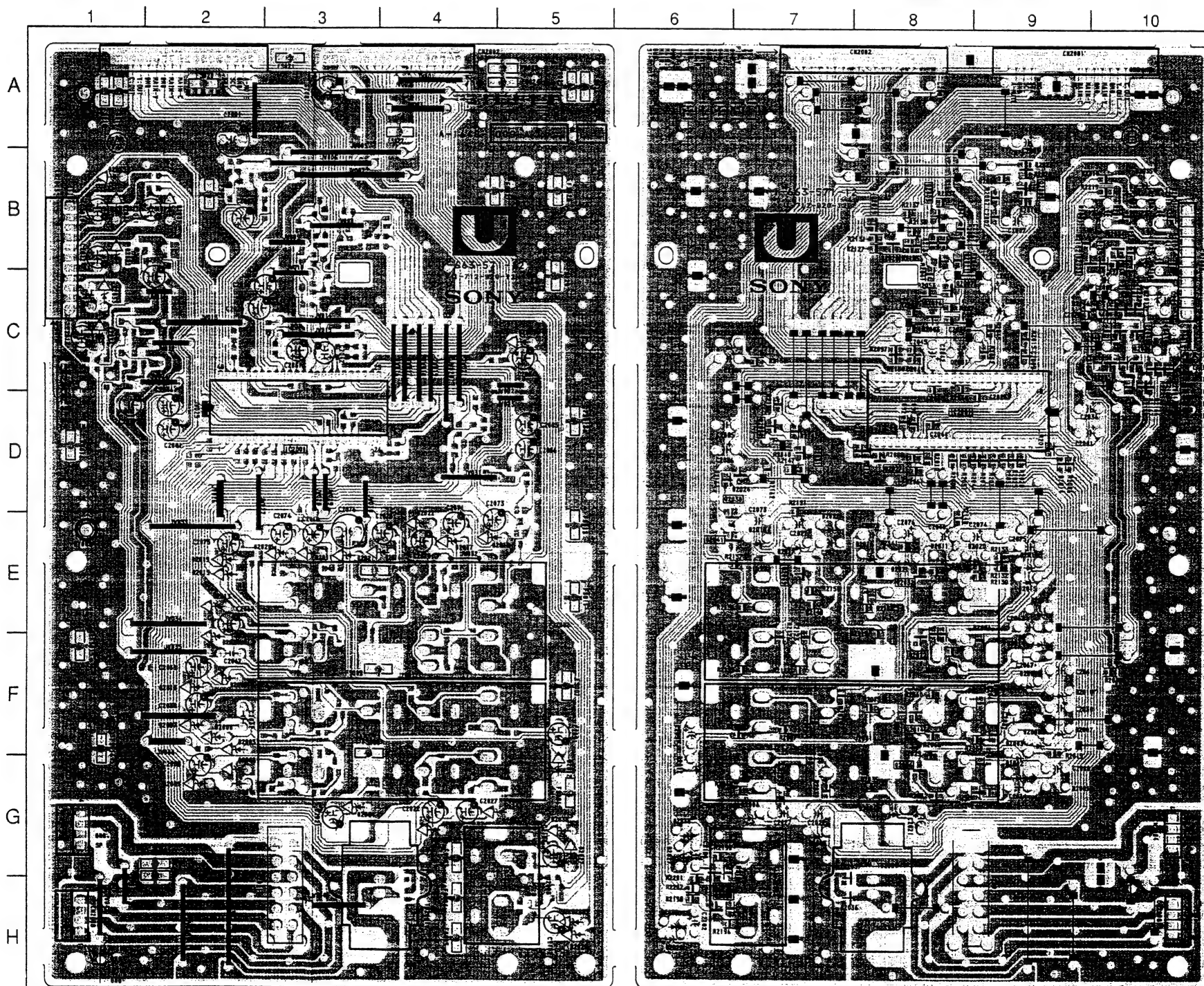
- U BOARD -

NOTE:

- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

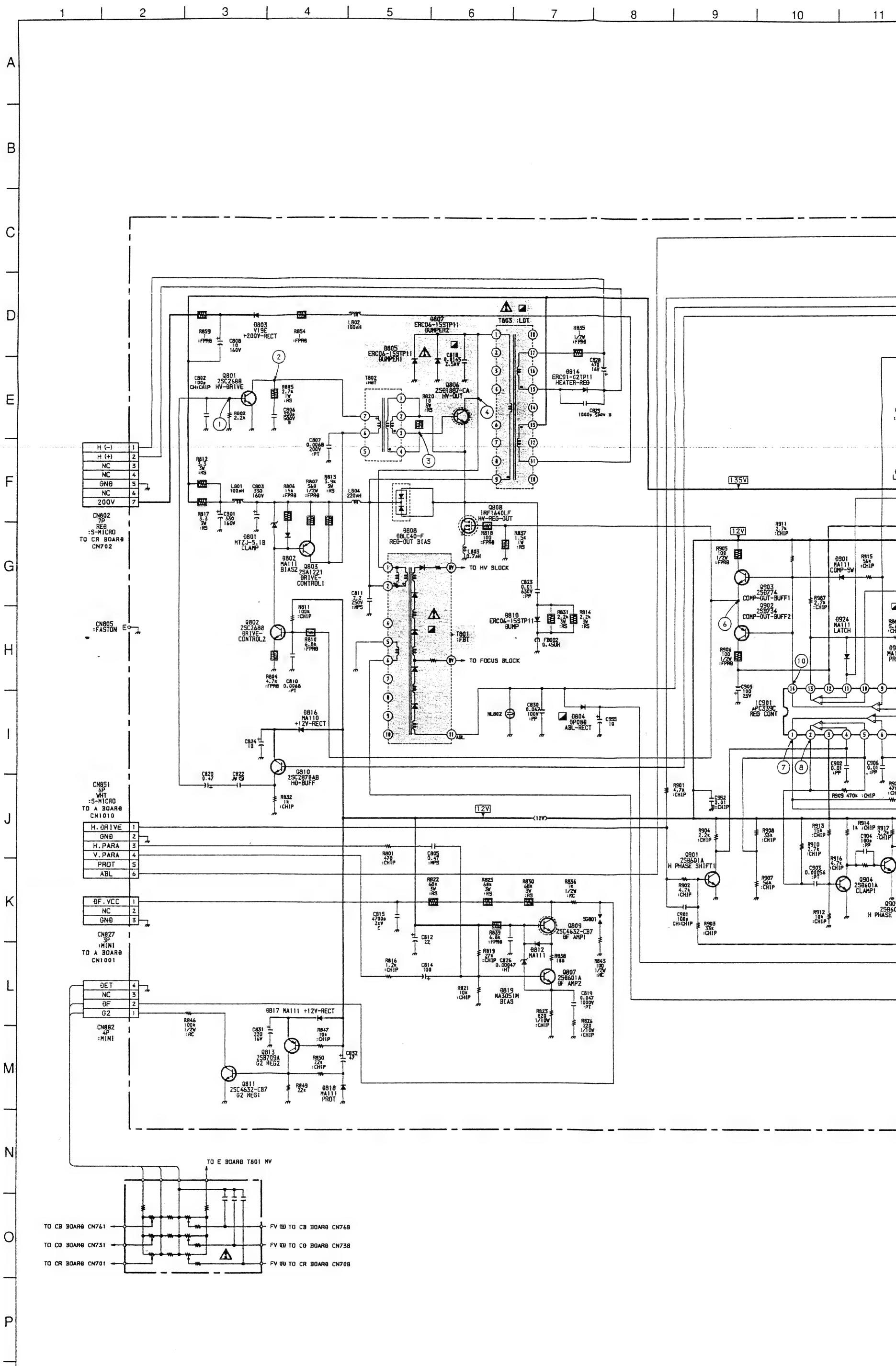
U BOARD

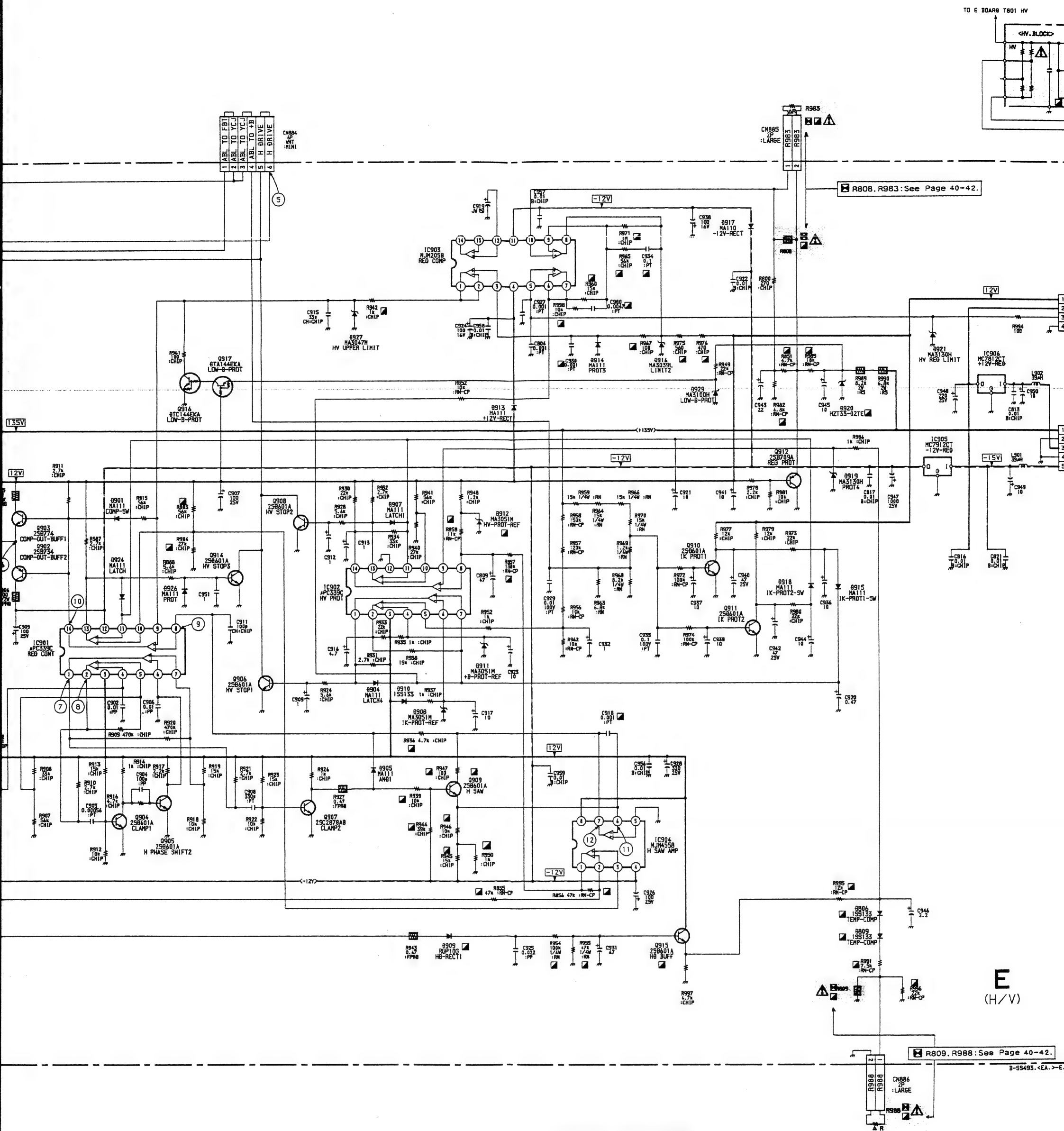
DIODE		
D2001	G-2.G-9	
D2002	G-2.G-9	
D2003	F-2.G-9	
D2004	G-3.G-8	
D2005	G-4.G-7	
D2006	G-5.G-7	
D2007	F-2.F-9	
D2008	F-2.F-9	
D2009	F-2.F-9	
D2010	F-2.F-9	
D2011	E-3.E-8	
D2012	G-5.G-6	
D2013	E-2.E-9	
D2014	F-2.F-9	
D2015	E-2.E-9	
D2016	E-4.E-8	
D2017	E-4.E-7	
D2018	E-4.E-7	
D2019	E-2.E-9	
D2020	E-3.E-9	
D2021	E-3.E-8	
D2022	E-4.E-7	
D2023	C-5.C-6	
D2024	D-7	
D2027	G-5.G-6	
D2028	H-5.H-6	
D2030	B-1.B-10	
D2031	B-2.B-10	
D2032	B-1.B-10	
D2033	C-1.C-10	
D2034	C-1.C-10	
D2035	B-1.B-10	
D2036	H-7	
D2037	G-7	
IC		
IC2001	D-8	
TRANSISTOR		
Q2006	G-8	
Q2007	C-8	
Q2009	B-8	
Q2011	B-8	
Q2014	F-8	
Q2016	C-8	
Q2022	F-8	
Q2027	D-8	
Q2028	B-8	
Q2029	B-8	
Q2030	D-7	
Q2031	D-7	
Q2032	E-8	
Q2033	B-9	
Q2034	B-10	
Q2035	C-10	
Q2036	C-10	
Q2038	E-6	
Q2039	E-7	
Q2040	C-10	
Q2041	E-6	
Q2043	C-10	



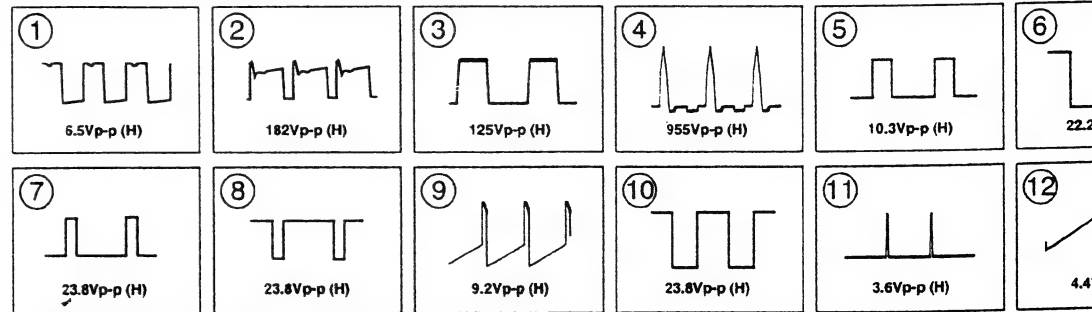
< Component Side >

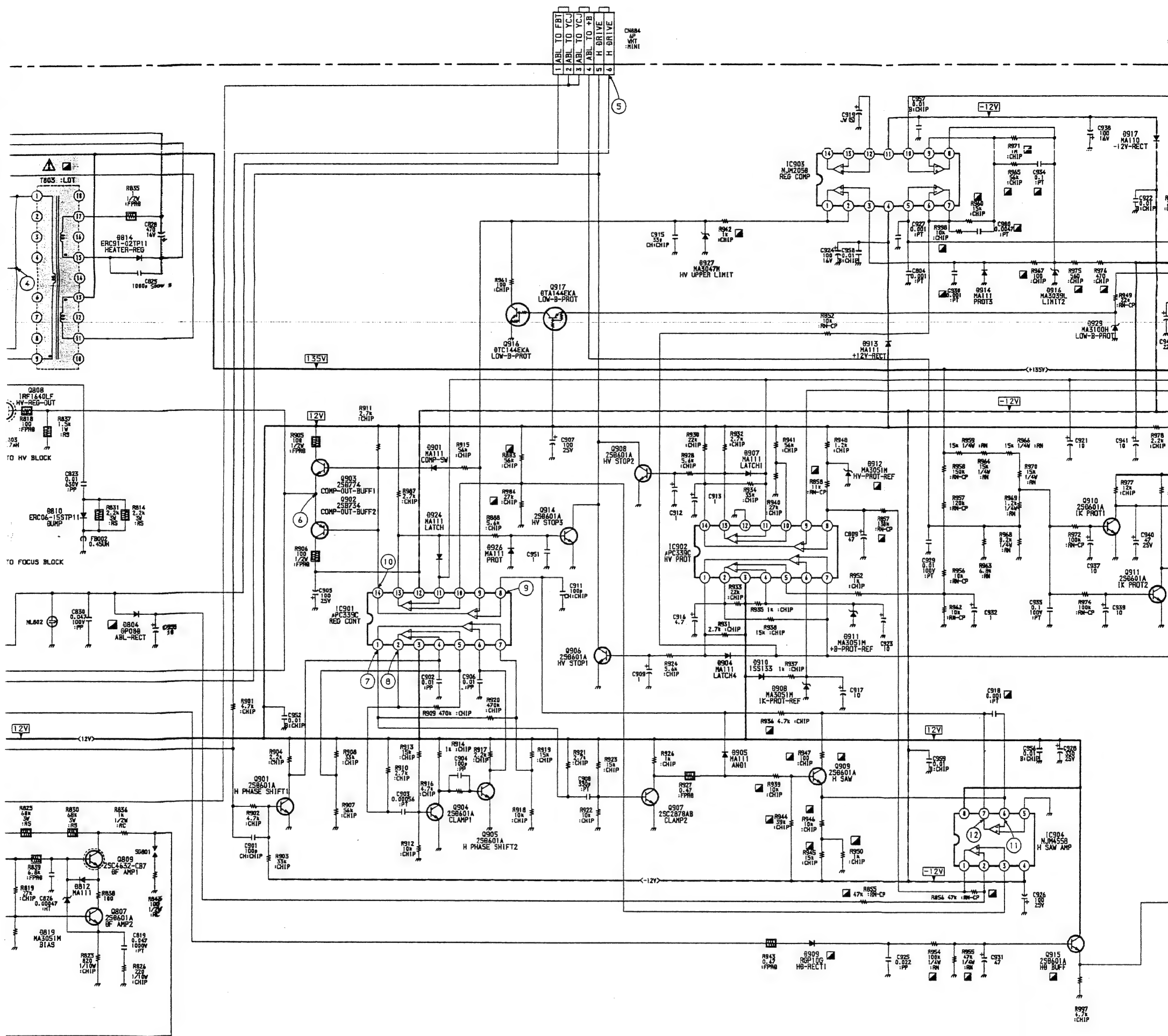
< Conductor Side >



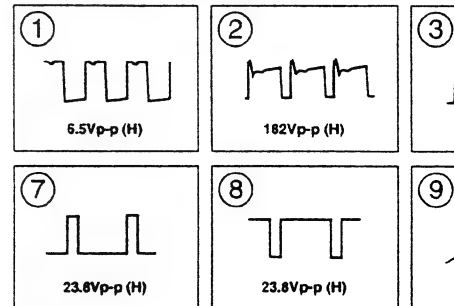


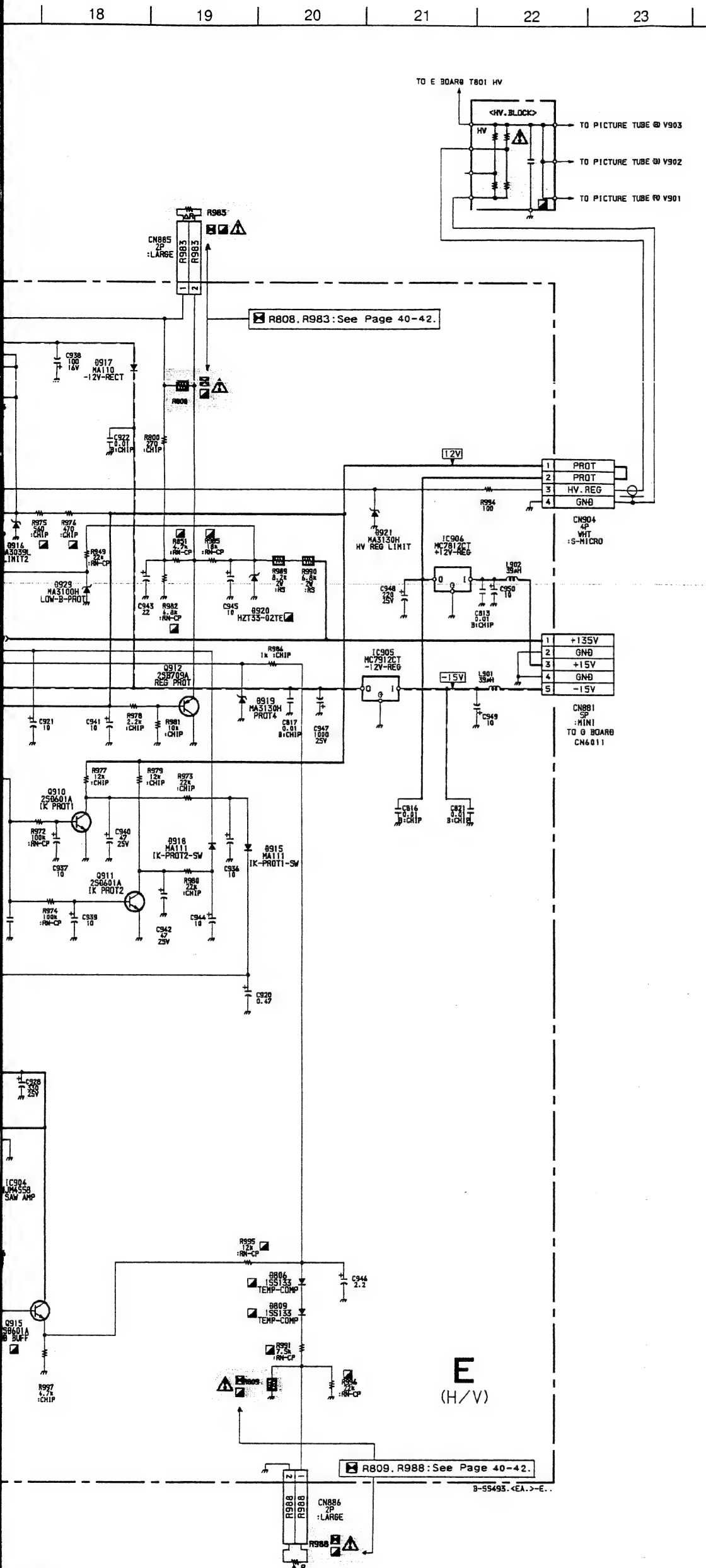
• E BOARD WAVEFORMS





E BOARD WAVEFORMS





E BOARD IC VOLTAGE LIST

IC901	1	-5.7	IC902	1	0.2	IC903	1	2.4		3	4.1
	2	6.8		2	0		2	2.4		4	-12.5
	3	12.8		3	12.7		3	2.4		5	GND
	4	3.8		4	5.4		4	12.0		6	0.2
	5	8.0		5	5.0		5	7.9		7	2.3
	6	7.5		6	5.4		6	7.9		8	12.7
	7	5.0		7	4.8		7	7.9	IC905	1	-15.0
	8	2.8		8	5.2		8	2.4		G	GND
	9	2.8		9	5.0		9	7.8		O	-12.6
	10	4.1		10	4.2		10	7.8	IC906	1	15.0
	11	0		11	0		11	-11.8		G	GND
	12	-12.6		12	GND		12	3.6		O	12.8
	13	-12.3		13	0.2	IC904	1	3.1			
	14	2.4		14	0		2	4.1			

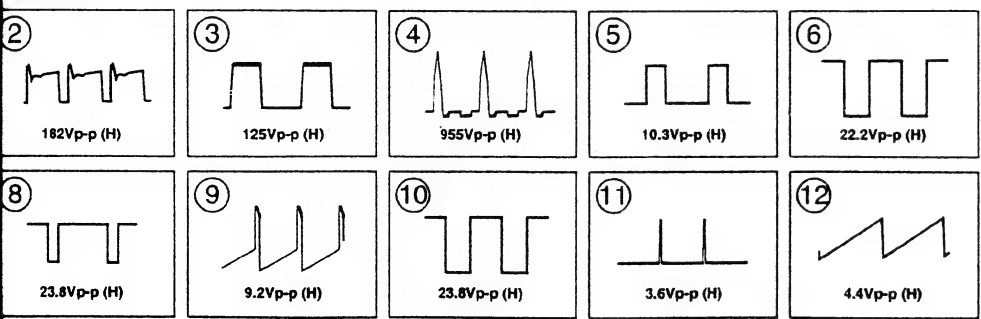
All Voltage are in V.
Pin numbers which are not described are not used.

E BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q801	-3.0	94.3	GND
Q802	2.9	136.9	2.5
Q803	136.9	94.6	137.5
Q806	52.4	141.4	52.4
Q807	2.2	5.3	1.6
Q809	6.1	365.0	5.6
Q810	4.2	12.0	5.9
Q811	0	722.0	GND
Q813	12.7	0	12.7
Q901	-0.8	3.8	GND
Q902	2.4	-12.1	2.3
Q903	2.3	12.1	2.3
Q904	0.5	0.9	GND
Q905	0.2	7.5	GND
Q906	0.2	4.2	GND
Q907	0.5	0.7	GND
Q908	0.2	4.2	GND
Q909	-2.2	2.3	0.2
Q910	0.7	0	GND
Q911	0.7	0	GND
Q912	10.4	GND	11.1
Q913	-0.5	0	GND
Q914	-0.6	4.2	GND
Q915	8.8	12.8	8.1
	S	G	D
Q808	0	2.3	52.4

All Voltage are in V.

FORMS

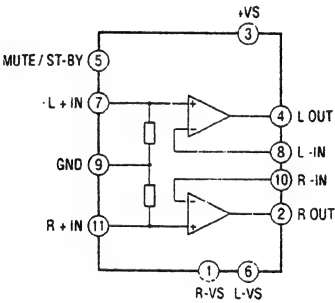


A BOARD
TRANSISTOR VOLTAGE LIST

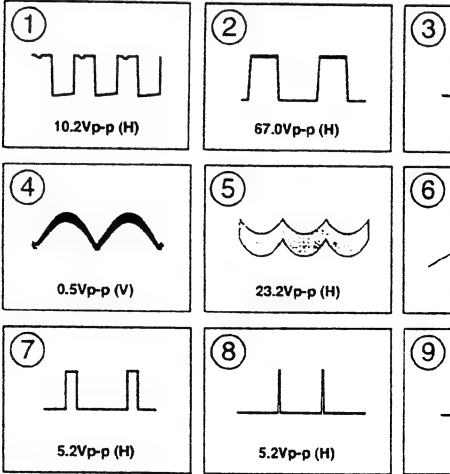
	B	C	E
Q1001	-120.0	0.3	-119.7
Q1002	-3.8	36.5	GND
Q1003	4.3	GND	3.8
Q1004	9.2	1.9	9.8
Q1005	2.2	9.8	1.6
Q1006	2.6	-71.6	3.2
Q1007	2.7	-71.6	3.2
Q1008	1.9	GND	2.6
Q1009	-120.0	-142.1	-119.7
Q1010	-116.6	-142.1	-120.8
Q1011	12.8	0.9	12.7
Q1012	0.8	0.2	GND
Q1013	1.8	12.7	1.5
Q1014	0.8	0.2	GND
Q1015	1.0	GND	1.5
Q1016	GND	1.0	1.0
Q1017	-2.3	12.5	1.0
Q1024	12.7	2.2	12.6
Q1025	1.2	0.3	1.2
Q1026	0.3	0.6	GND
Q3201	0.8	0	GND
Q3204	0	12.8	0
Q3205	0	12.8	0
Q3206	15.2	0	15.3
Q3207	12.8	0	12.8
Q3208	0	7.0	0
Q3209	0.9	0.2	0
Q3210	0	0.8	GND

All Voltage are in V.

A BOARD : IC3201 TDA7265



A BOARD WAVEFORMS



RESISTOR VOLTAGE LIST

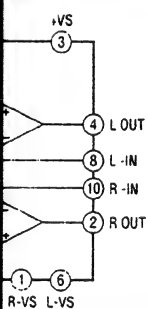
B	C	E
20.0	0.3	-119.7
3.8	36.5	GND
1.3	GND	3.8
2.2	1.9	9.8
2.2	9.8	1.6
2.6	-71.6	3.2
2.7	-71.6	3.2
9	GND	2.6
10.0	-142.1	21.7
6.6	-142.1	-120.9
2.8	0.9	12.7
1.8	0.2	GND
1.8	12.7	1.5
1.8	0.2	GND
0	GND	1.5
ND	1.0	1.0
2.3	12.5	1.0
2.7	2.2	12.6
2	0.3	1.2
3	0.6	GND
8	0	GND
0	12.8	0
0	12.8	0
2	0	15.3
8	0	12.8
0	7.0	0
9	0.2	0
0	0.8	GND

Voltage are in V.

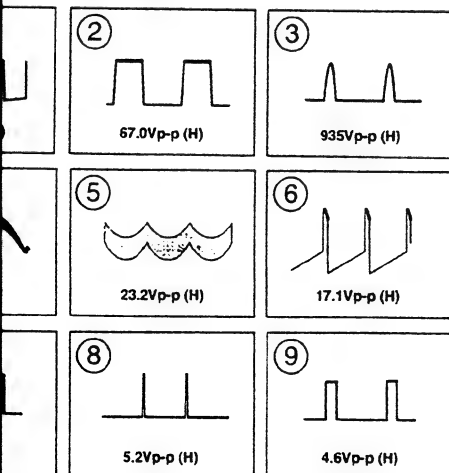
A BOARD IC VOLTAGE LIST

IC1001	1	6.2
	2	5.3
	3	GND
	4	6.2
IC1002	1	6.2
	2	5.3
	3	GND
	4	6.2
IC1003	1	13.6
	2	12.8
	3	GND
	4	13.6
IC1004	1	13.8
	2	9.5
	3	GND
	4	13.8
IC1005	1	-15.0
	G	GND
	O	-12.8
IC1006	1	8.3
	G	GND
	O	5.3
IC3201	1	-23.2
	2	0
	3	23.3
	4	0
	5	14.1
	6	-23.2
	7	0
	8	0
	9	GND
	10	0
	11	0

RD : IC3201 TDA7265



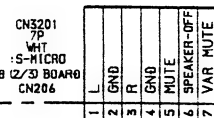
WAVEFORMS

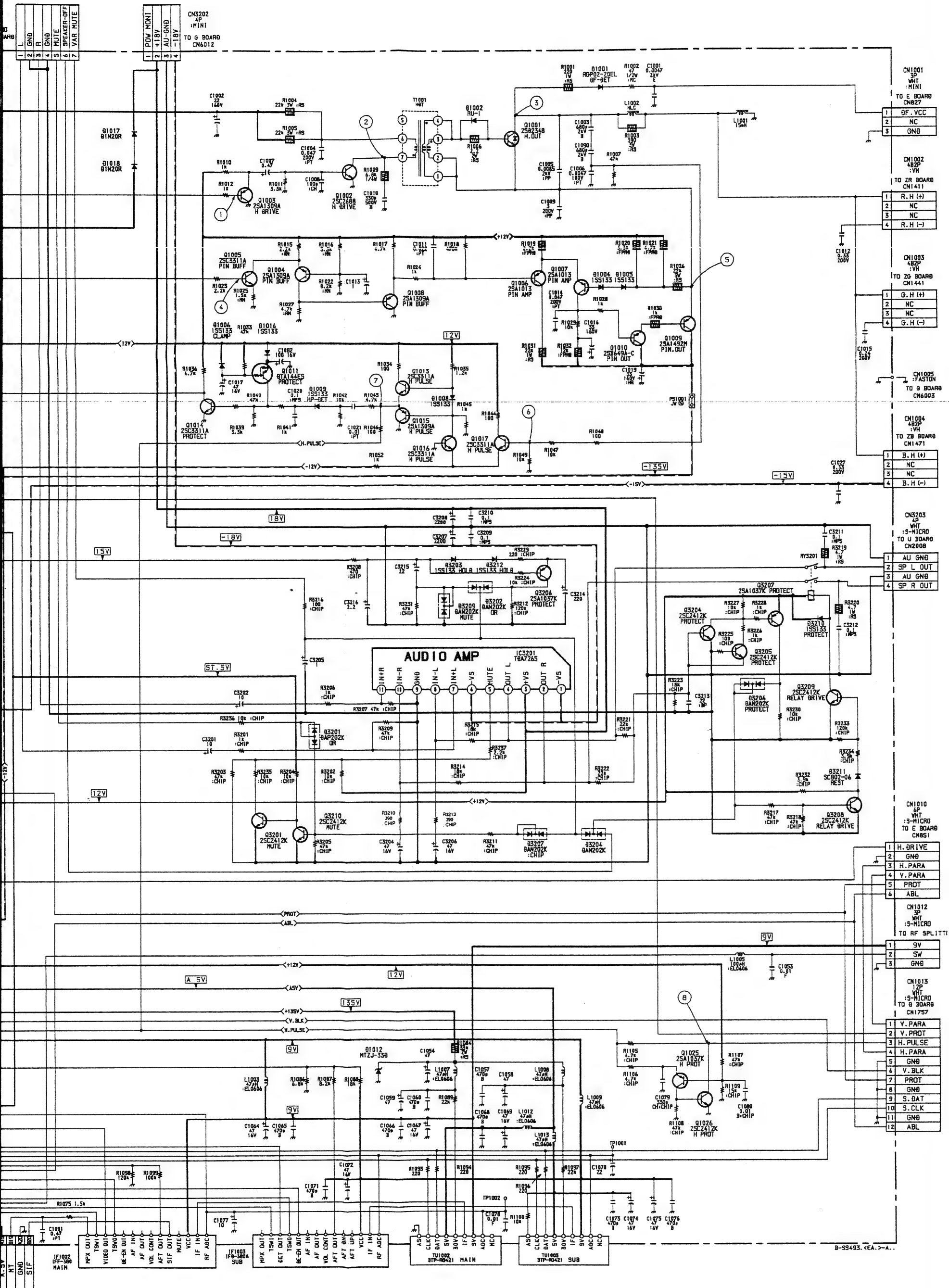


	B	C	E
Q1001	-120.0	0.3	-119.7
Q1002	-3.8	36.5	GND
Q1003	4.3	GND	3.8
Q1004	9.2	1.9	9.8
Q1005	2.2	9.8	1.6
Q1006	2.6	-71.6	3.2
Q1007	2.7	-71.6	3.2
Q1008	1.9	GND	2.6
Q1009	-120.0	-142.1	-119.7
Q1010	-116.6	-142.1	-120.9
Q1011	12.8	0.9	12.7
Q1012	0.8	0.2	GND
Q1013	1.8	12.7	1.5
Q1014	0.8	0.2	GND
Q1015	1.0	GND	1.5
Q1016	GND	1.0	1.0
Q1017	-2.3	12.5	1.0
Q1024	-2.7	2.2	12.6
Q1025	1.2	0.3	1.2
Q1026	0.3	0.6	GND
Q3201	0.8	0	GND
Q3204	0	12.8	0
Q3205	0	12.8	0
Q3206	15.2	0	15.3
Q3207	12.8	0	12.8
Q3208	0	7.0	0
Q3209	0.9	0.2	0
Q3210	0	0.8	GND

IC1001	1	6.2
	2	5.3
	3	GND
IC1002	4	6.2
	1	6.2
	2	5.3
IC1003	3	GND
	4	6.2
	1	13.6
IC1004	2	12.8
	3	GND
	4	13.6
IC1005	1	13.8
	2	9.5
	3	GND
IC1006	4	13.8
	1	-15.0
	G	GND
IC3201	O	-12.8
	1	8.3
	G	GND
IC3201	O	5.3
	1	-23.2
	2	0
	3	23.3
	4	0
	5	14.1
	6	-23.2
	7	0
	8	0
	9	GND
	10	0
11	0	

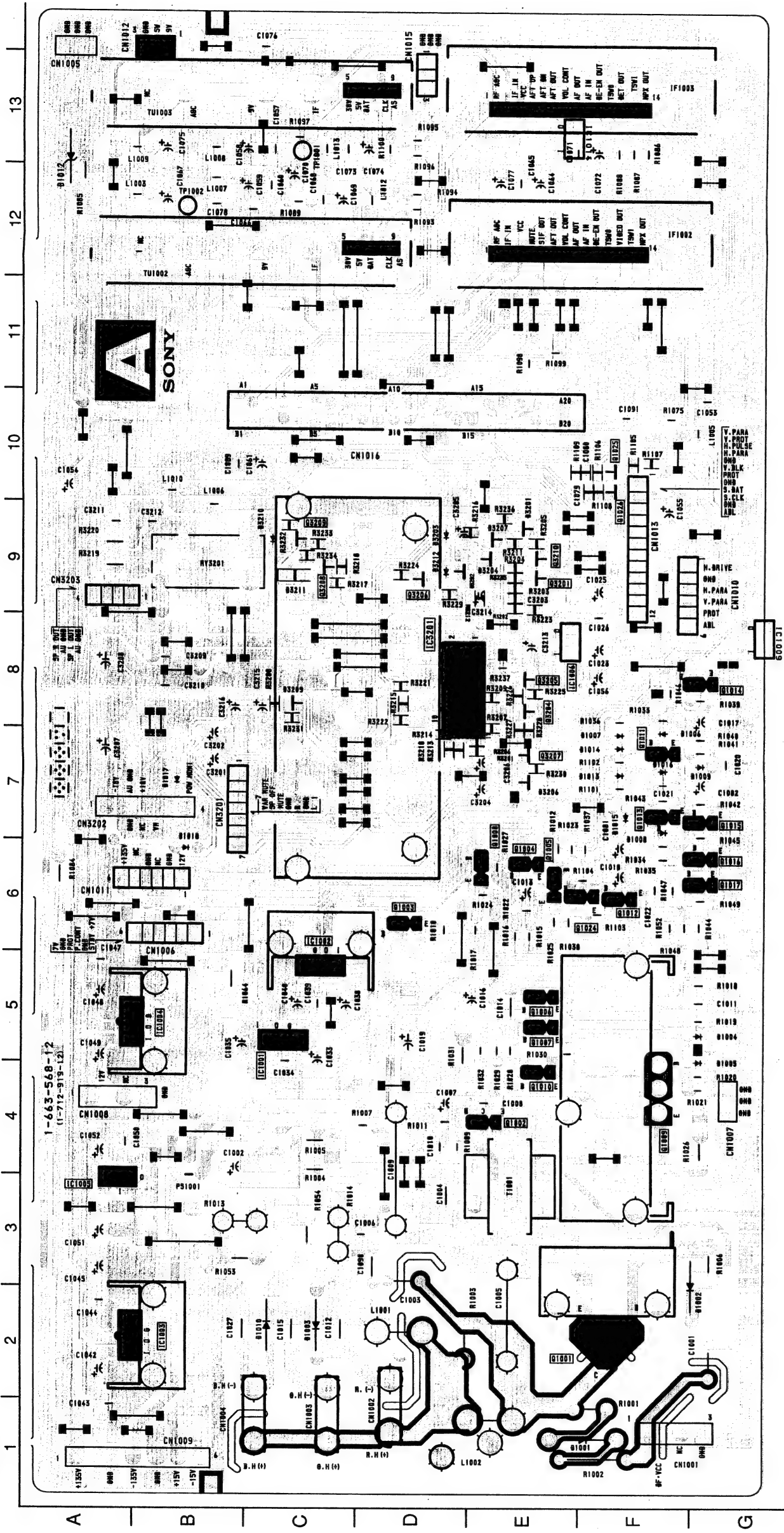
<p>①</p> <p>10.2Vp-p (H)</p>	<p>②</p> <p>67.0Vp-p (H)</p>	<p>③</p> <p>935Vp-p (H)</p>
<p>④</p> <p>0.5Vp-p (V)</p>	<p>⑤</p> <p>23.2Vp-p (H)</p>	<p>⑥</p> <p>17.1Vp-p (H)</p>
<p>⑦</p> <p>5.2Vp-p (H)</p>	<p>⑧</p> <p>5.2Vp-p (H)</p>	<p>⑨</p> <p>4.6Vp-p (H)</p>





A [TUNER, H. OUT,
AUDIO AMP]

- A BOARD -

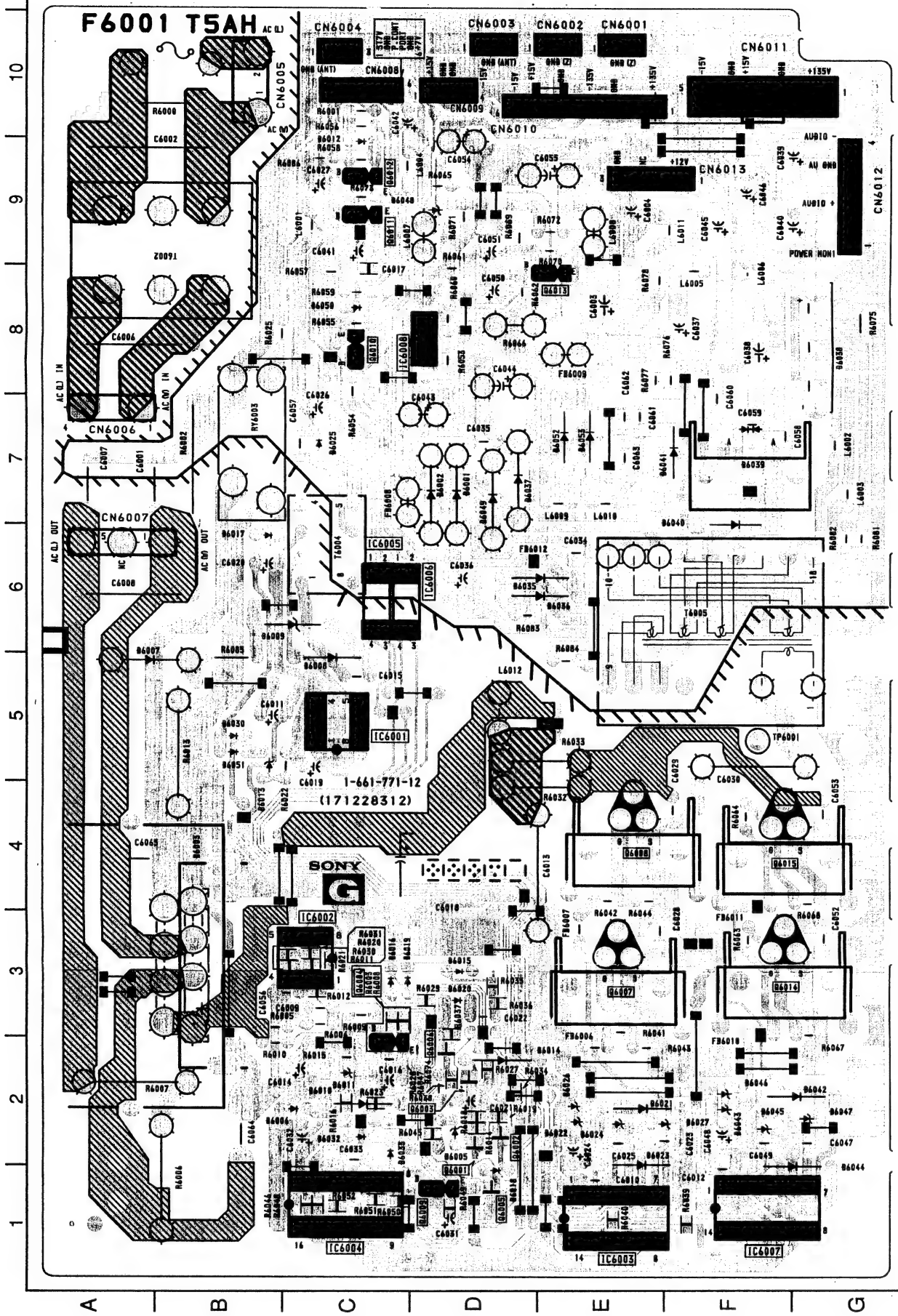


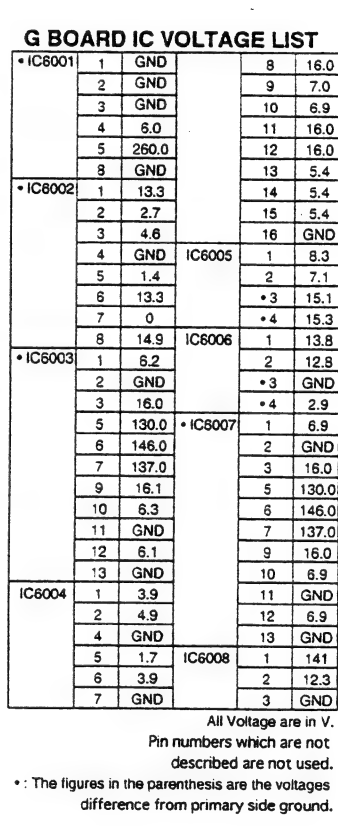
A BOARD

DIODE	*	D1018	B-6	IC1005	A-3	Q1013	F-7
D1001	F-1	D3201	E-8	IC1006	E-8	Q1014	G-8
D1002	G-2	D3202	D-9	IC3201	D-8	Q1015	G-7
D1003	C-2	D3203	D-9	TRANSISTOR			
D1004	G-5	D3204	E-9	Q1001	F-2	Q1016	G-6
D1005	G-4	D3205	E-7	Q1002	E-4	Q1017	G-6
D1006	F-7	D3206	E-9	Q1003	D-6	Q1018	F-6
D1007	F-7	D3207	E-9	Q1004	F-10	Q1019	F-10
D1008	F-7	D3208	C-8	Q1005	E-6	Q1020	F-10
D1009	G-7	D3209	C-9	Q1006	E-5	Q1021	E-9
D1010	F-7	D3210	C-9	Q1007	E-5	Q1022	E-9
D1011	A-12	D3211	D-9	Q1008	E-6	Q1023	E-8
D1012	F-7	D3212	D-9	Q1009	F-4	Q1024	E-8
D1013	F-7	IC1001	C-5	Q1010	E-4	Q1025	E-7
D1014	F-7	IC1002	C-5	Q1011	F-7	Q1026	C-9
D1015	F-7	IC1003	B-2	Q1012	F-6	Q1027	E-9
D1016	F-7	IC1004	A-5	Q1013	F-6	Q1028	C-9
D1017	B-7			Q1014	F-6	Q1029	E-9

G [POWER SUPPLY]
- G BOARD -

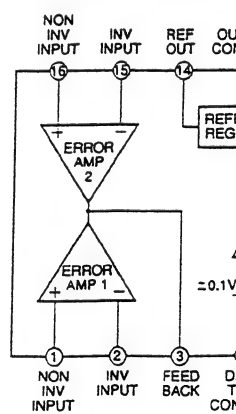
G BOARD			
DIODE	*		
D6001	D-7	D6042	G-2
D6002	D-7	D6043	F-2
D6003	B-3	D6044	F-1
D6004	D-2	D6045	F-2
D6005	C-2	D6046	F-2
D6006	A-5	D6047	G-2
D6007	C-5	D6048	D-9
D6008	C-6	D6049	D-7
D6009	C-6	D6050	C-8
D6010	C-2	D6051	B-5
D6011	C-2	D6052	E-7
D6012	C-9	D6053	E-7
D6013	B-5	IC	
D6014	D-2	IC6001	C-5
D6015	D-3	IC6002	C-3
D6016	C-3	IC6003	E-1
D6017	B-6	IC6004	C-1
D6018	D-1	IC6005	C-6
D6019	C-3	IC6006	C-6
D6020	D-3	IC6007	F-1
D6021	E-2	IC6008	D-8
TRANSISTOR			
D6022	E-2	Q6001	D-2
D6023	E-1	Q6002	D-2
D6024	E-2	Q6003	D-2
D6025	C-7	Q6004	C-2
D6026	E-2	Q6005	D-1
D6027	E-2	Q6006	D-2
D6028	B-5	Q6007	E-3
D6029	C-2	Q6008	E-4
D6030	C-2	Q6009	D-1
D6031	C-2	Q6010	C-8
D6032	C-2	Q6011	C-9
D6033	E-6	Q6012	C-9
D6034	E-6	Q6013	E-8
D6035	E-6	Q6014	F-3
D6036	E-6	Q6015	F-4
D6037	D-7		
D6038	G-8		
D6039	F-7		
D6040	F-7		
D6041	F-7		



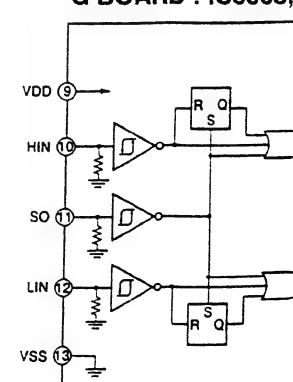


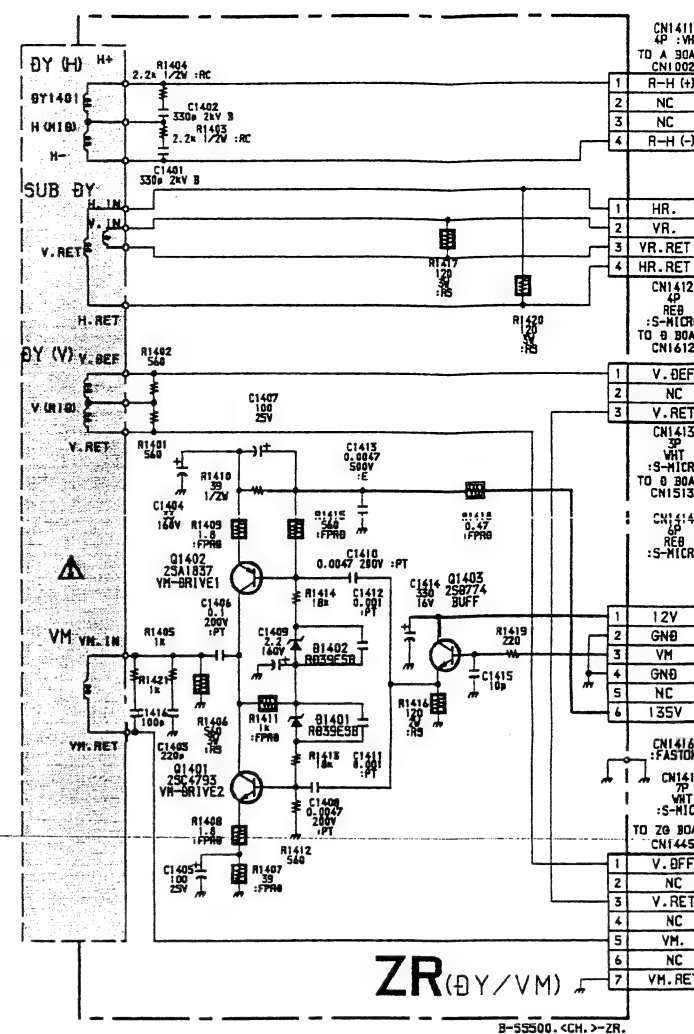
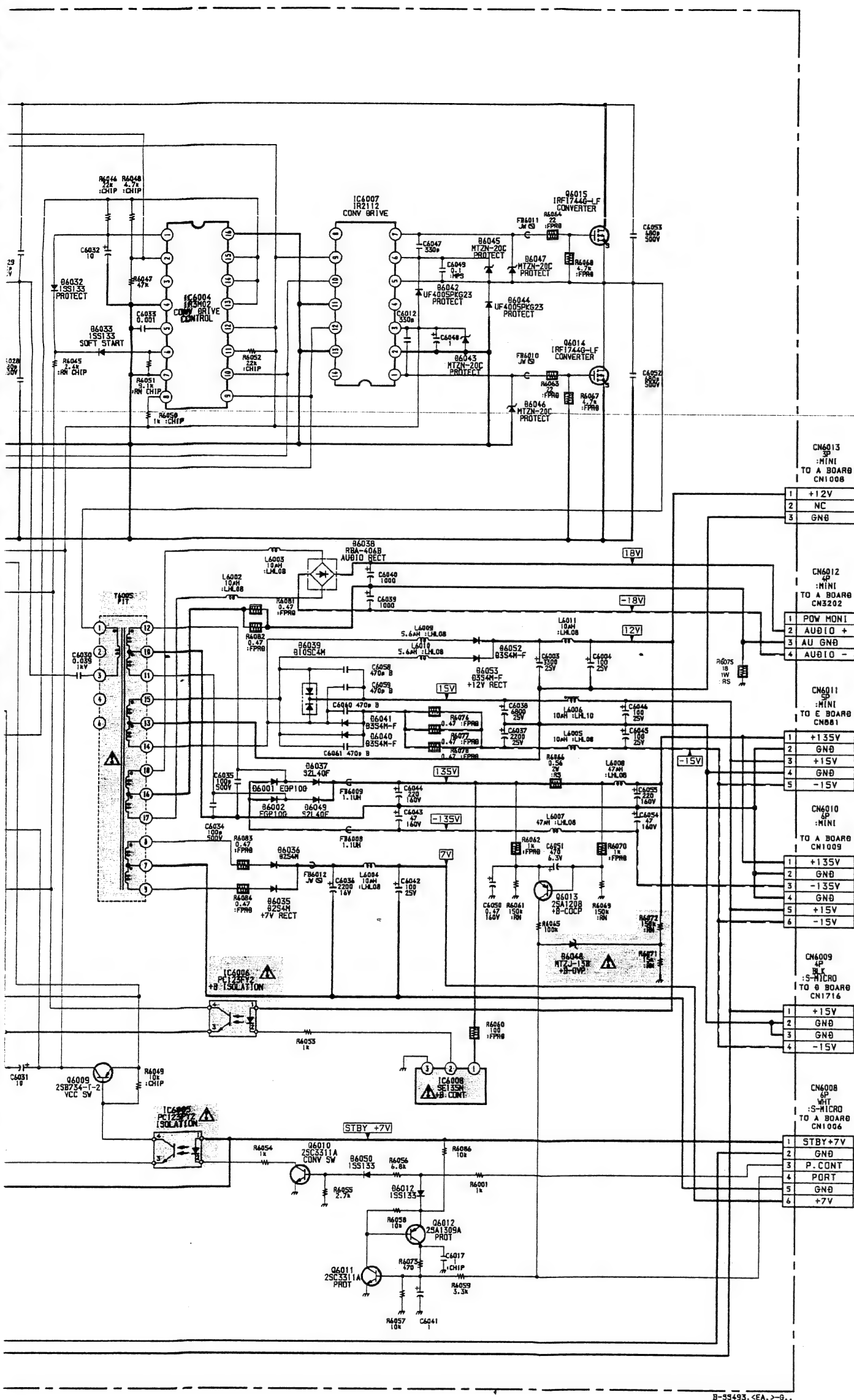
	B	C	E
* Q6001	0.8	0	GND
* Q6002	0	15.4	GND
* Q6003	*	GND	15.4
* Q6004	0	4.9	GND
* Q6005	3.9	GND	2.9
* Q6006	0	2.6	GND
* Q6009	15.3	16.0	16.1
Q6010	0.8	0.2	GND
Q6011	0	8.3	GND
Q6012	8.3	0	8.3
Q6013	140.5	0	140.7
	S	G	D
* Q6007	GND	6.2	GND
* Q6008	130.0	136.0	259.0
* Q6014	GND	6.8	130.0
* Q6015	130.0	136.0	259.0

G BOARD : IC6004



G BOARD : IC6003.





G BOARD IC VOLTAGE LIST

*IC6001	1	GND		8	16.0
	2	GND		9	7.0
	3	GND		10	6.9
	4	6.0		11	16.0
	5	260.0		12	16.0
	6	GND		13	5.4
*IC8002	1	13.3	IC6005	14	5.4
	2	2.7		15	5.4
	3	4.6		16	GND
	4	GND		1	8.3
	5	1.4		2	7.1
	6	13.3		*3	15.1
*IC5003	7	0	IC6006	*4	15.3
	8	14.9		1	13.8
	1	8.2		2	12.8
	2	GND		*3	GND
	3	16.0		*4	2.9
	5	130.0		*IC8007	1
6	146.0	2	GND		
7	137.0	3	16.0		
9	16.1	5	130.0		
10	6.3	6	146.0		
11	GND	7	137.0		
IC6004	12	6.1	IC8008	9	16.0
	13	GND		10	6.9
	1	3.9		11	GND
	2	4.9		12	6.9
	4	GND		13	GND
	5	1.7		1	141
	6	3.9		2	12.3
	7	GND		3	GND

• : The figures in the parenthesis are the voltages difference from primary side ground.

G BOARD

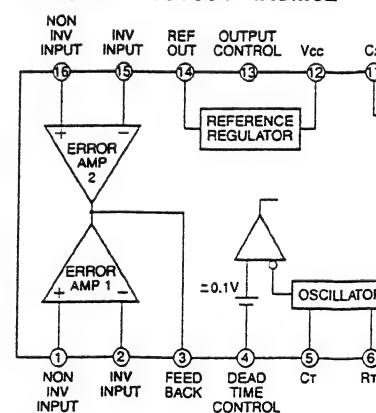
TRANSISTOR VOLTAGE LIST

	B	C	E
• Q6001	0.8	0	GND
• Q6002	0	15.4	GND
• Q6003	*	GND	15.4
• Q6004	0	4.9	GND
• Q6005	3.9	GND	2.9
• Q6006	0	2.8	GND
• Q6009	15.3	16.0	16.1
Q6010	0.8	0.2	GND
Q6011	0	8.3	GND
Q6012	8.3	0	8.3
Q6013	140±5	0	140.7
	S	G	D
• Q6007	GND	6.2	62.8
• Q6008	130.0	136.0	259.0
• Q6014	GND	6.8	130.0
• Q6015	130.0	136.0	259.0

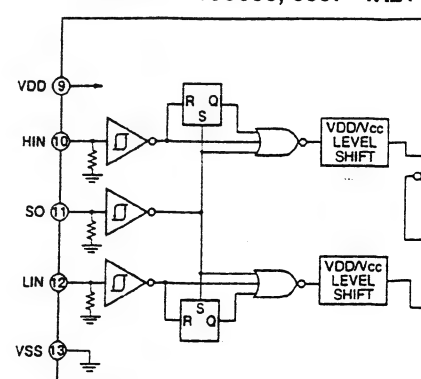
All Voltage are in V.

- : The figures in the parenthesis are the voltages difference from primary side ground.
- * : Can not measured.

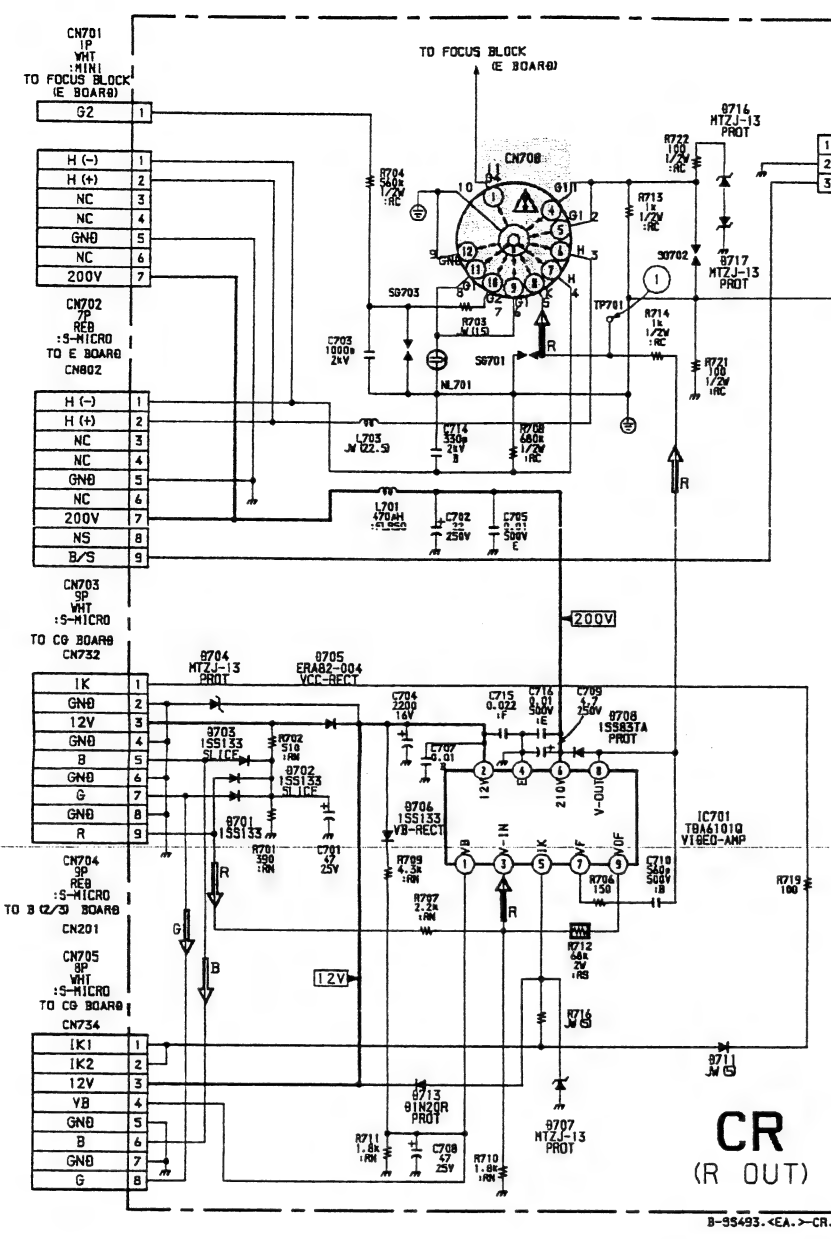
G BOARD : IC6004 IR3M02



G BOARD : IC6003, 6007 IR21

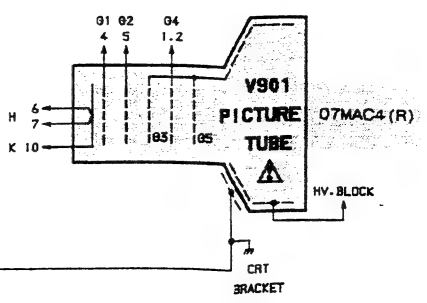


A
B
C
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P

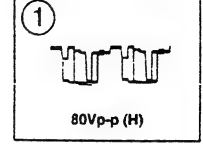


CR
(R OUT)

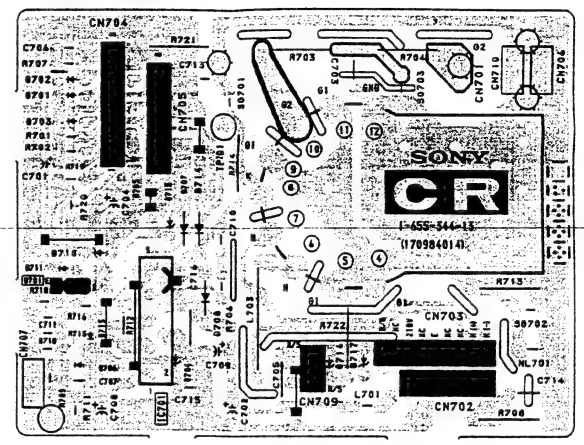
B-95493. <EA. >-CR.



• CR BOARD WAVEFORM



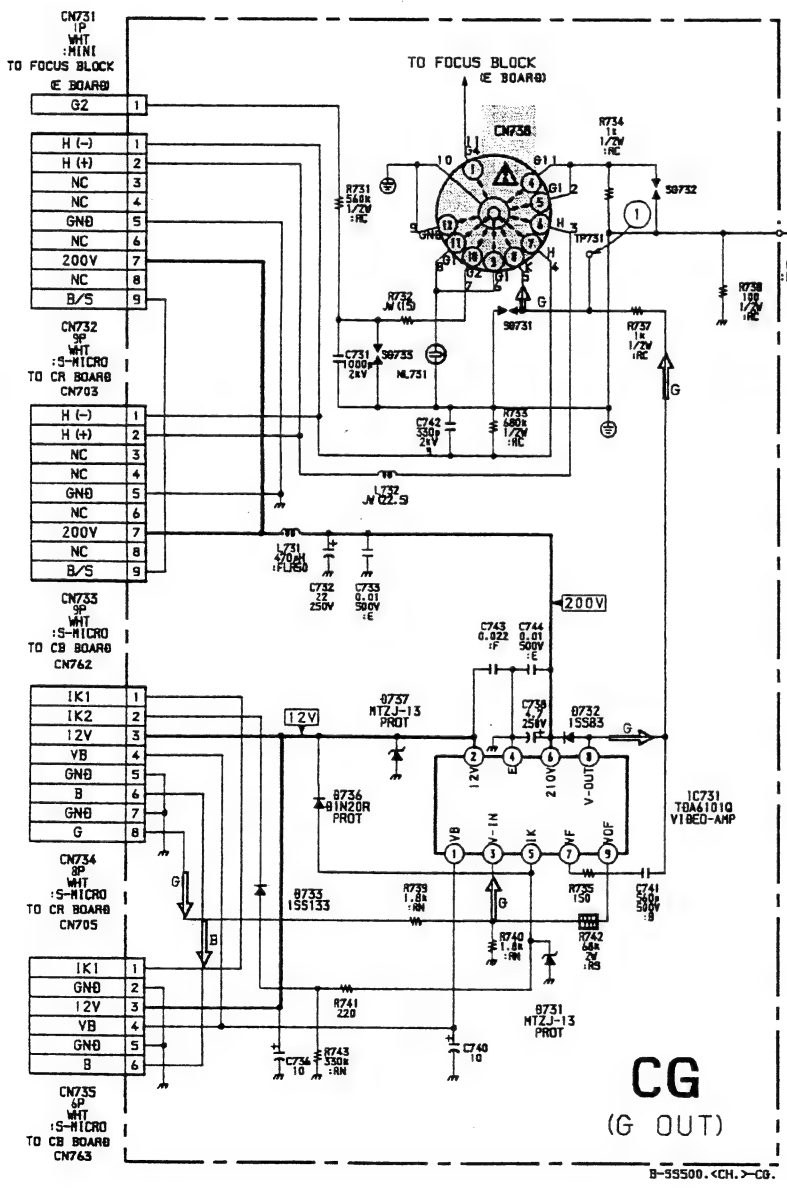
CR [R OUT]
- CR BOARD -



CR BOARD IC VOLTAGE LIST

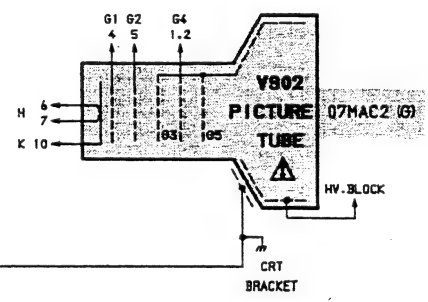
IC701	1	3.3
	2	12.5
	3	3.1
	4	GND
	5	10.0
	6	209.0
	7	169.0
	8	169.0
	9	168.0

All Voltage are in V.

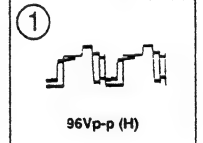


CG
(G OUT)

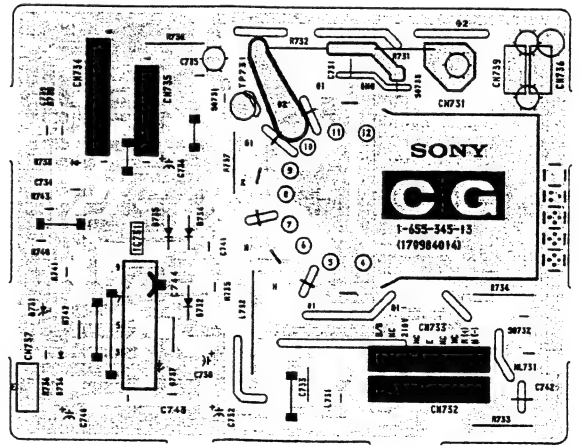
B-95500. <CH. >-CG.



• CG BOARD WAVEFORM



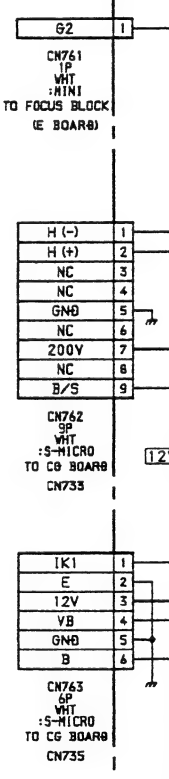
CG [G OUT]
- CG BOARD -



CG BOARD IC VOLTAGE LIST

IC731	1	3.3
	2	12.5
	3	3.0
	4	GND
	5	10.0
	6	209.0
	7	162.0
	8	163.0
	9	161.0

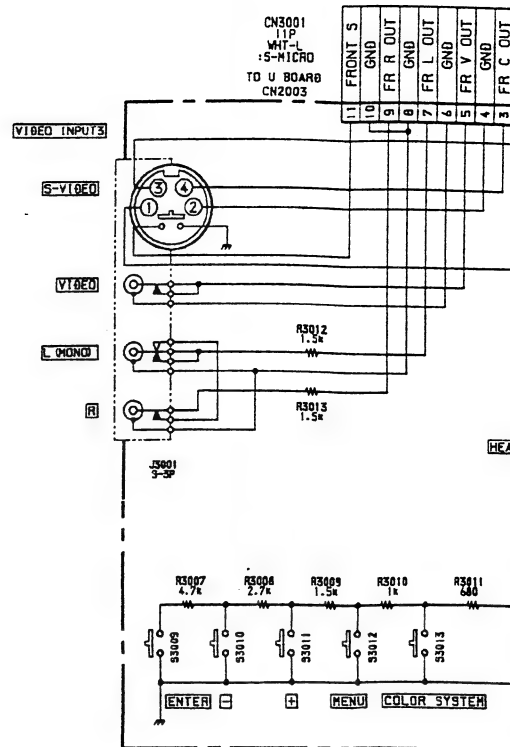
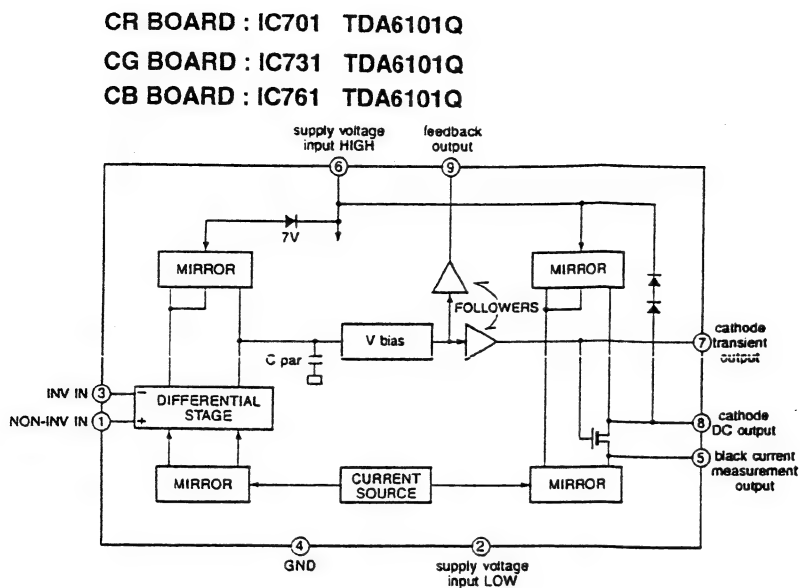
All Voltage are in V.



CR BOARD
IC VOLTAGE LIST

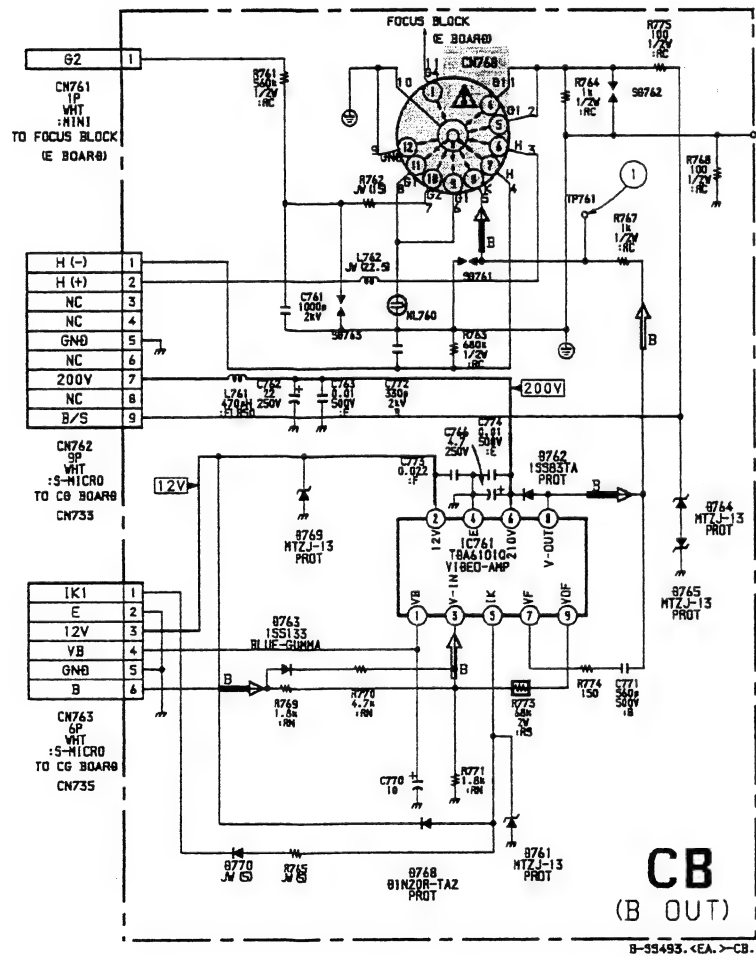
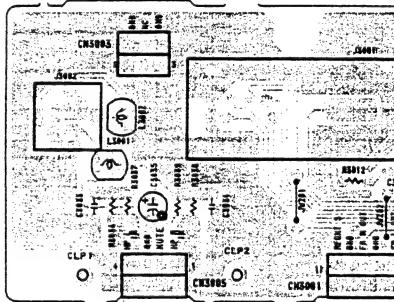
IC701	1	3.3
	2	12.5
	3	3.1
	4	GND
	5	10.0
	6	209.0
	7	169.0
	8	169.0
	9	168.0

All Voltage are in V.



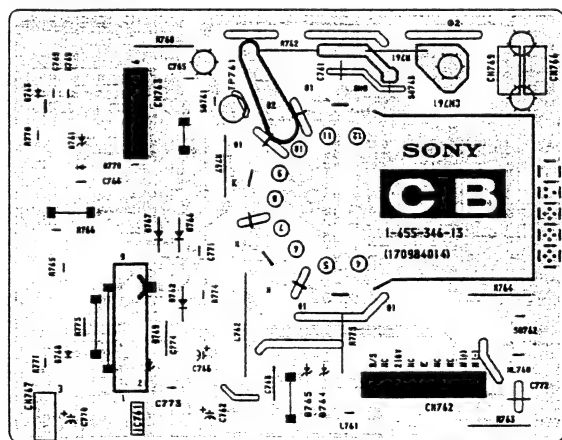
HA VIDEO 3 INPUT, HP OUT, FUNCTION SW

- HA BOARD -



CB [B OUT]

- CB BOARD -

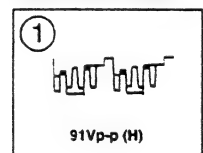


CB BOARD
IC VOLTAGE LIST

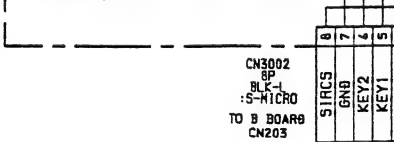
IC761	1	3.3
	2	12.5
	3	3.1
	4	GND
	5	10.0
	6	209.0
	7	166.0
	8	167.0
	9	164.0

All Voltage are in V.

• CB BOARD WAVEFORM

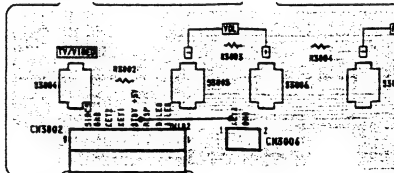


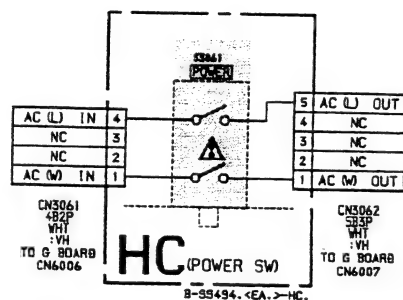
HB (SIRCS, FUNCTION SW)



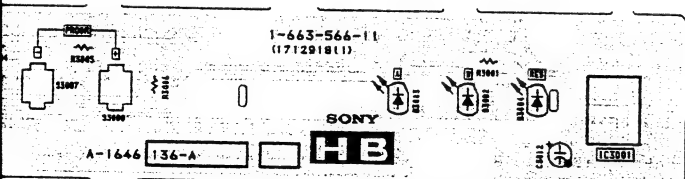
HB [SIRCS, FUNCTION SW]

- HB BOARD -



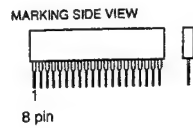


All Voltage are in V.

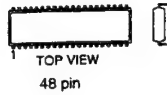


6-5. SEMICONDUCTORS

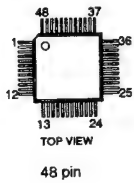
CX20125



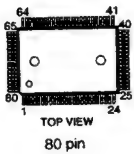
CXA1855S



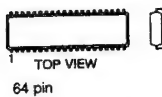
CXD2018Q



CXD2024AQ



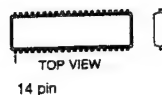
CXP85112B-613S



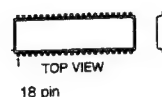
CXP85460-033Q



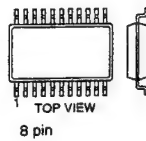
IR2112



LA7856A
PA0053B



LM358D
NJM2234M
NJM2235M
NJM2240M
TDA2822D



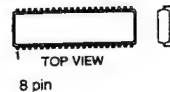
LM7912CT
MC7905CT
NJM7912FA



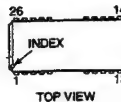
L78L05ACZ-AP



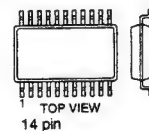
M5218AP
NJM4558D
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 μ PC393C



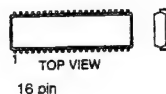
MB814100A-70PJ-T6
MB814100C-70PJN-T6



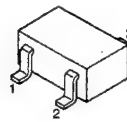
MC14066BF



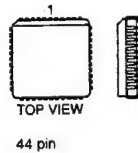
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MC74HC4053F
IR3M02A
TDA4665T-T



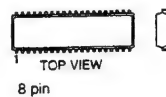
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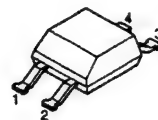
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TPU3040-TC20



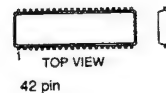
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PC123F2



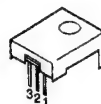
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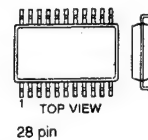
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MC7805CT
MC7812CT
TA7805S
TA7812S



SBX1780-51



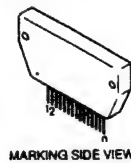
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SDA9188-3XGEG



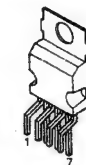
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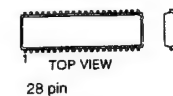
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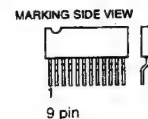
STV9379



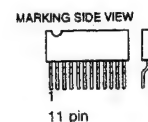
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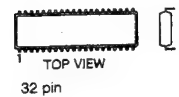
TDA6101Q/N3



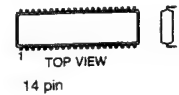
TDA7265



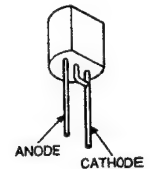
TDA9143/N2
TDA9160A



μ PC339C



μ PC574J



DTA114EKA-T146
DTA144EKA-T146
DTC144EKA-T146
2SA1037K-T-146-QR
2SA1162G
2SB709A-QRS-TX
2SC1623-L5L6
2SC2412K-T-146-QR
2SC2712-YG
2SD601A-Q



DTA144ESA



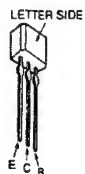
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IRF1744G-LF
2SA1837
2SC4793



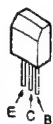
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2SA1208



2SA1175-HFE
2SA1039A-QRSTA
2SC2785-HFE
2SC3311A-QRSTA



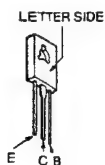
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2SB733-34
2SB734-B4
2SD774-34



2SA1492M-OPY



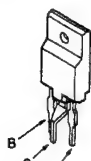
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2SC2668-LK



2SC2878-AB



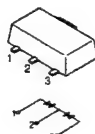
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2SD1887-CA



2SD2348LBSONY



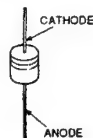
BAS16



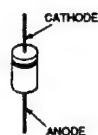
D10SC4M



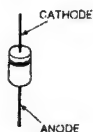
D1N20R
ERA82-004TPS
MTZJ-13
MTZJ-3.6A
MTZJ-T-77-24
RD13ES-B2
RD20ES-B1
RD3.9ES-B1
RD33ES-B2
RD39ES-B2
RD5.1ES-B2
RD5.6ES-B2
RD9.1ES-B1
1SS119-25
1SS133T-72
11EQS04



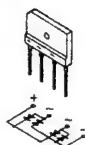
D2S4M



D3S4M-F
EGP10D
ERC04-06S
ERC06-15S
ERC91-02
RU-IC
S2LA20F



D6SB60L
RBA-4068



D8LC40



DAN202K



DAP202K



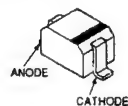
D1NL20-TR
EL1Z
GP08D(GP08DPKG23)
RGP10GPKG23
RGP02-17EL-6433
RGP02-20EL-6394
S2L40F
UF4005PKG23
1SS83



ERC38-06
U05G
V19E-T52



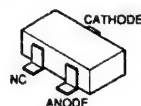
MA111



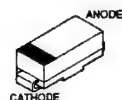
MA3039-L-(TX)
MA3043-M-TX
MA3051M-TX
MA3075-TX
MA3100H-TX
MA3130H-TX
RD13M-B3
RD3.9M-B1
RD5.1M-B2
RD7.5M-B2



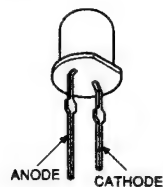
MA3240-TX



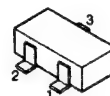
SC802-06



TLR124



DA204K-T-147
1SS226



SECTION 7 EXPLODED VIEWS

NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.

- The construction parts of an assembled part are indicated with a collation number in the remark column.

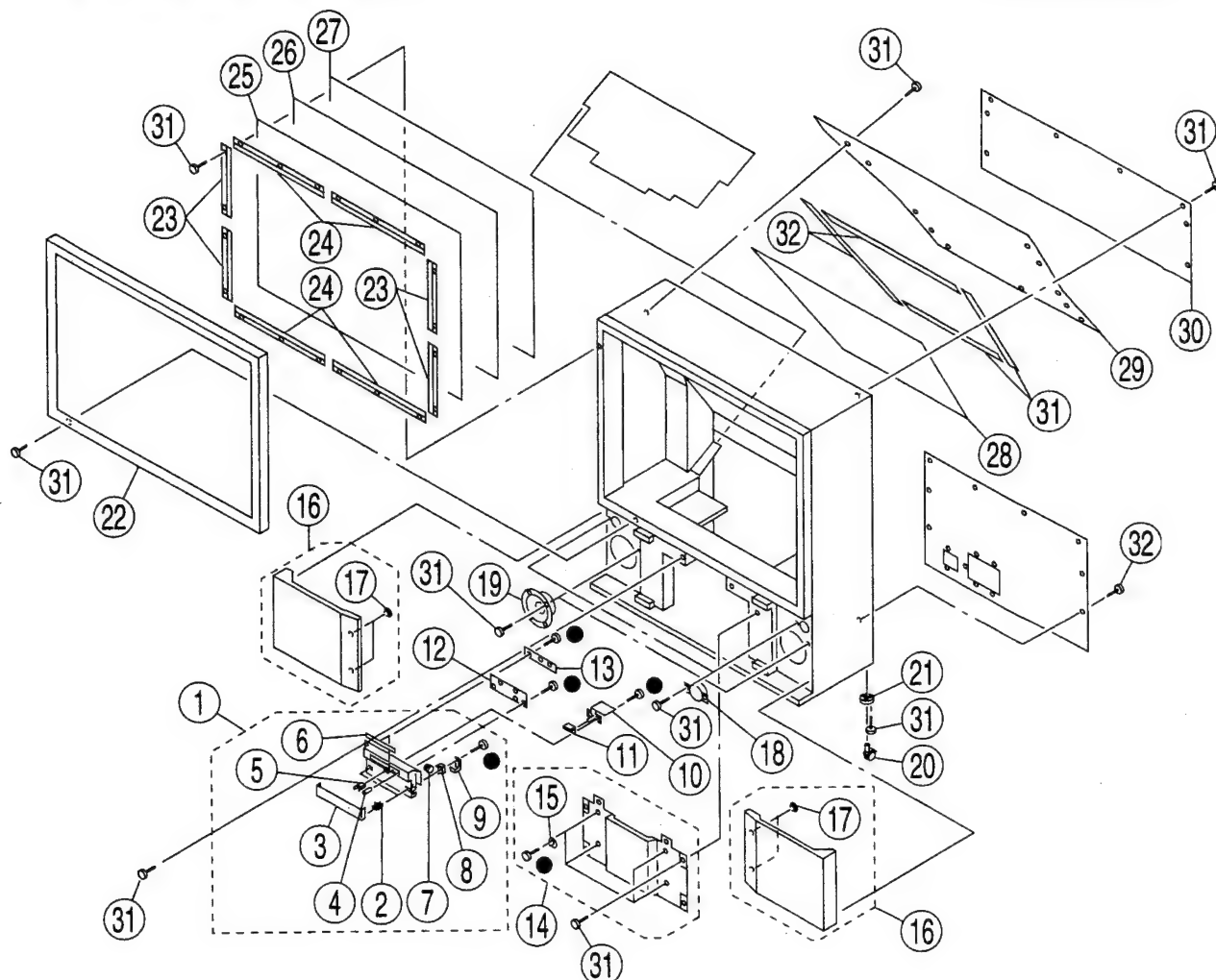
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

7-1. COVER

● : 7-685-648-79 +BVTP 3X12



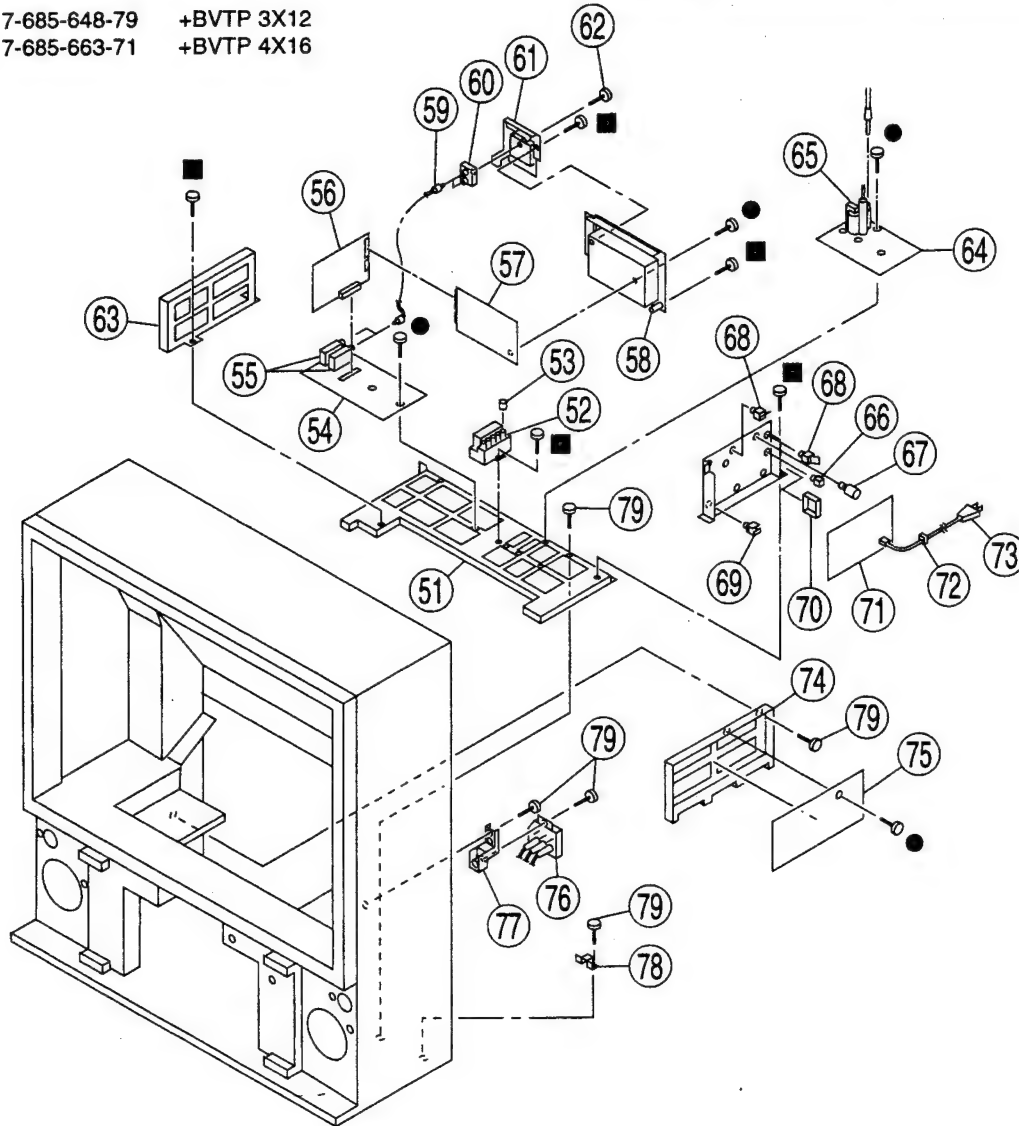
REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
1	X-4033-941-1	PANEL (53) ASSY, CONTROL	2-9	17	4-838-438-00	LATCH	
2	3-703-035-11	SHAFT, LID		18	1-505-703-11	SPEAKER (5CM)	
3	4-052-685-21	LID, FINAL CONTROL		19	1-505-704-11	SPEAKER (16CM)	
4	4-057-227-01	GUIDE (L), LIGHT		20	4-040-508-01	CASTER	
5	4-047-464-01	CATCHER, PUSH					
6	4-055-637-01	PANEL, INDICATOR		21	4-030-850-01	SOCKET, CASTER	
7	3-720-417-01	DAMPER, OIL		22	X-4034-426-1	FRAME (61) ASSY, SCREEN	
8	4-397-047-01	HOLDER, DAMPER		23	4-044-727-01	HOLDER (S), SCREEN	
9	4-036-513-01	SPRING, LID		24	4-044-726-01	HOLDER (L), SCREEN	
10	* A-1646-137-A	HC BOARD, COMPLETE		25	4-058-538-01	SCREEN (61), CONTRAST	
11	4-051-888-01	POWER BUTTON		26	4-040-124-11	PLATE (L), DIFFUSION	
12	* A-1646-135-A	HA BOARD, COMPLETE		27	4-040-123-11	PLATE (F), DIFFUSION	
13	* A-1646-136-A	HB BOARD, COMPLETE		28	4-058-871-01	MIRROR (61), REFLECTION	
14	X-4034-429-1	COVER (61) ASSY, FRONT	15	29	4-058-535-01	COVER (61), MIRROR	
15	4-843-806-00	STRIKE		30	* 4-058-533-01	PLATE (61), TOP	
16	X-4034-428-1	GRILLE (61) ASSY, SPEAKER	17	31	4-378-522-31	SCREW, TAPPING, HEXAGON HEAD	
				32	* 4-058-527-01	HOLDER, MIRROR	

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

7-2. CHASSIS

- : 7-685-648-79 +BVTP 3X12
■ : 7-685-663-71 +BVTP 4X16



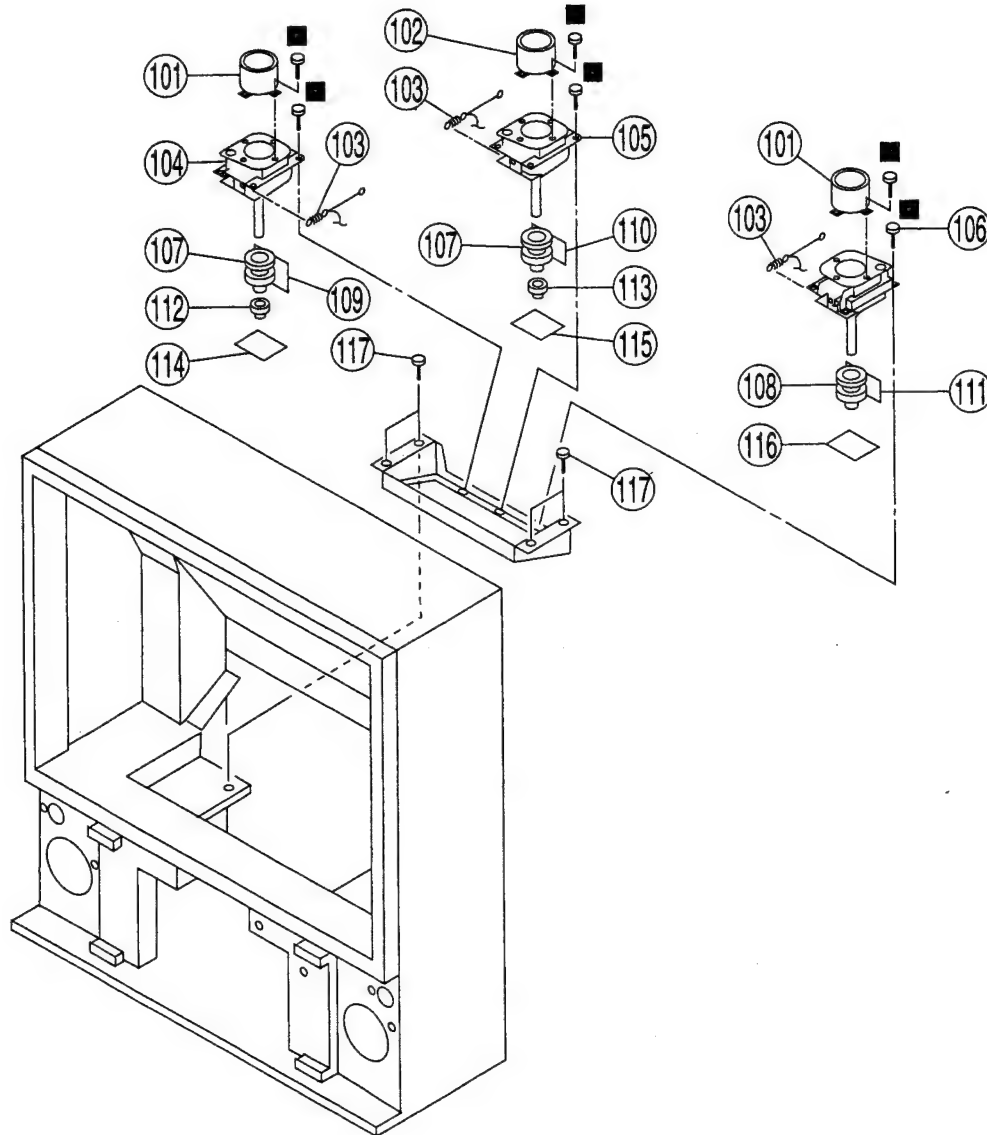
REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
51	* 4-047-949-12	BRACKET, MAIN PC BOARD		68	* 3-703-141-00	HOLDER, PCB	
52	Δ 8-598-955-11	BLOCK ASSY, HIGH-VOLTAGE		69	* 3-659-682-11	HOLDER, PC BOARD	
53	4-373-137-01	CAP (Z), RUBBER		70	* 4-316-015-00	HOLDER, WIRE	
54	* A-1632-585-A	A BOARD, COMPLETE		71	* A-1637-007-A	G BOARD, COMPLETE	
55	8-598-270-00	TUNER, ET BTP-RG421		72	4-389-201-11	HOLDER, AC CORD	
56	* A-1621-061-A	B BOARD, COMPLETE		73	Δ 1-574-358-12	CORD, POWER (WITH CONNECTOR)	
57	* A-1647-004-A	U BOARD, COMPLETE				7.5A/250V (KP-E61SN11)	
58	4-055-642-01	TERMINAL BOARD (A) (53)			Δ 1-690-270-21	CORD, POWER (WITH CONNECTOR)	
59	* 1-555-400-00	CABLE, PIN				2.5A/250V (KP-E61MH11(ME)/KP-E61MN11)	
60	1-251-249-11	DISTRIBUTOR, RF			Δ 1-769-609-21	CORD, POWER (WITH CONNECTOR)	
61	4-055-643-01	TERMINAL BOARD (B) (53)				(KP-E61MH11(HK))	
62	4-382-854-11	SCREW (M3X10), P, SW (+)		74	* 4-054-834-01	BRACKET (D)	
63	* 4-054-833-01	BRACKET (B)		75	* A-1642-215-A	D BOARD, COMPLETE	
64	* A-1642-192-A	E BOARD, COMPLETE		76	Δ 1-223-925-12	RESISTOR ASSY (HIGH-VOLTAGE)	
65	Δ 1-453-189-11	TRANSFORMER ASSY, FLYBACK	(NX-2631//A4S)	77	* 4-054-825-01	BRACKET, FOCUS PACK	
66	* 4-382-848-01	HOLDER, PCB		78	4-051-889-01	HOLDER, AC	
67	* 3-687-542-41	SPACER, PC BOARD SPACE		79	4-378-522-31	SCREW, TAPPING, HEXAGON HEAD	

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

7-3. PICTURE TUBE

■ : 7-685-663-71 +BVTP 4X16



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
101	4-040-131-01	LENS (LINNIT POINT 6)		110	* A-1390-595-A	ZG BOARD, COMPLETE	
102	4-040-131-21	LENS (LINNIT POINT 6)		111	* A-1390-596-A	ZB BOARD, COMPLETE	
103	4-048-142-11	SPRING, EXTENSION		112	Δ 1-452-790-21	NECK ASSY	
104	Δ 8-733-508-05	PICTURE TUBE 07MAC4(R)		113	Δ 1-452-790-11	NECK ASSY	
105	Δ 8-733-509-05	PICTURE TUBE 07MAC2(G)		114	* A-1331-532-A	CR BOARD, COMPLETE	
106	Δ 8-733-507-05	PICTURE TUBE 07MAC4(B)		115	* A-1331-533-A	CG BOARD, COMPLETE	
107	Δ 8-451-463-12	DEFLECTION YOKE Y829PA2N (R) (G)		116	* A-1331-534-A	CB BOARD, COMPLETE	
108	Δ 8-451-463-22	DEFLECTION YOKE Y829PA2N2 (B)		117	4-378-522-31	SCREW, TAPPING, HEXAGON HEAD	
109	* A-1390-594-A	ZR BOARD, COMPLETE					

SECTION 8

ELECTRICAL PARTS LIST

CR CG

NOTE:

Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

• The components identified by \boxtimes in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

• Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

• All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

When indicating parts by reference number, please include the board name.

RESISTORS

- All resistors are in ohms
- F : nonflammable

CAPACITORS

PF : μ F

• There are some cases the reference number on one board overlaps on the other board. Therefore, when ordering parts by the reference number, please include the board name.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
* A-1331-532-A CR BOARD, COMPLETE *****				<RESISTOR>			
C701	1-104-664-11	ELECT	47MF 20% 25V	R701	1-215-411-00	METAL 390 1% 1/4W	
C702	1-107-662-11	ELECT	22MF 20% 250V	R702	1-215-414-00	METAL 510 1% 1/4W	
C703	1-161-754-00	CERAMIC	0.001MF 10% 2KV	R704	1-202-847-00	SOLID 560K 20% 1/2W	
C704	1-126-768-11	ELECT	2200MF 20% 16V	R706	1-249-407-11	CARBON 150 5% 1/4W	
C705	1-102-050-00	CERAMIC	0.01MF 500V	R707	1-215-429-00	METAL 2.2K 1% 1/4W	
C707	1-102-129-00	CERAMIC	0.01MF 10% 50V	R708	1-202-883-11	SOLID 680K 20% 1/2W	
C708	1-104-664-11	ELECT	47MF 20% 25V	R709	1-215-436-00	METAL 4.3K 1% 1/4W	
C709	1-107-651-11	ELECT	4.7MF 20% 250V	R710	1-215-427-00	METAL 1.8K 1% 1/4W	
C710	1-102-157-00	CERAMIC	560PF 10% 500V	R711	1-215-427-00	METAL 1.8K 1% 1/4W	
C714	1-162-115-00	CERAMIC	330PF 10% 2KV	R712	1-215-903-11	METAL OXIDE 68K 5% 2W F	
C715	1-101-005-00	CERAMIC	0.022MF 50V	R713	1-202-818-00	SOLID 1K 20% 1/2W	
C716	1-102-050-00	CERAMIC	0.01MF 500V	R714	1-202-818-00	SOLID 1K 20% 1/2W	
<CONNECTOR>				R719	1-247-807-31	CARBON 100 5% 1/4W	
CN701	* 1-508-784-21	PIN, CONNECTOR (5mm PITCH) 1P		R721	1-202-549-00	SOLID 100 20% 1/2W	
CN702	* 1-564-510-11	PLUG, CONNECTOR 7P		R722	1-202-549-00	SOLID 100 20% 1/2W	
CN703	* 1-564-512-11	PLUG, CONNECTOR 9P		<SPARK GAP>			
CN704	* 1-564-512-11	PLUG, CONNECTOR 9P		SG701	1-519-422-11	GAP, SPARK	
CN705	* 1-564-511-11	PLUG, CONNECTOR 8P		SG702	1-519-422-11	GAP, SPARK	
CN706	1-695-915-11	TAB (CONTACT)		SG703	1-519-422-11	GAP, SPARK	
CN708	Δ 1-251-179-11	SOCKET, PICTURE TUBE		*****			
CN709	* 1-564-506-11	PLUG, CONNECTOR 3P		* A-1331-533-A CG BOARD, COMPLETE *****			
<DIODE>				<CAPACITOR>			
D701	8-719-991-33	DIODE 1SS133T-77		C731	1-161-754-00	CERAMIC 0.001MF 10% 2KV	
D702	8-719-991-33	DIODE 1SS133T-77		C732	1-107-662-11	ELECT 22MF 20% 250V	
D703	8-719-991-33	DIODE 1SS133T-77		C733	1-102-050-00	CERAMIC 0.01MF 500V	
D704	8-719-921-86	DIODE MTZJ-13		C736	1-126-964-11	ELECT 10MF 20% 50V	
D705	8-719-210-21	DIODE 11EQS04		C738	1-107-651-11	ELECT 4.7MF 20% 250V	
D706	8-719-991-33	DIODE 1SS133T-77		C740	1-126-964-11	ELECT 10MF 20% 50V	
D707	8-719-921-86	DIODE MTZJ-13		C741	1-102-157-00	CERAMIC 560PF 10% 500V	
D708	8-719-901-83	DIODE 1SS83		C742	1-162-115-00	CERAMIC 330PF 10% 2KV	
D713	8-719-510-48	DIODE D1N20R		C743	1-101-005-00	CERAMIC 0.022MF 50V	
D716	8-719-921-86	DIODE MTZJ-13		C744	1-102-050-00	CERAMIC 0.01MF 500V	
D717	8-719-921-86	DIODE MTZJ-13		<CONNECTOR>			
<IC>				CN731	* 1-508-784-21	PIN, CONNECTOR (5mm PITCH) 1P	
IC701	8-759-346-42	IC TDA6101Q/N3		CN732	* 1-564-512-11	PLUG, CONNECTOR 9P	
<COIL>				CN733	* 1-564-512-11	PLUG, CONNECTOR 9P	
L701	1-408-429-00	INDUCTOR 470UH		CN734	1-564-511-11	PLUG, CONNECTOR 8P	
<NEON LAMP>				CN735	* 1-564-509-11	PLUG, CONNECTOR 6P	
NL701	1-519-108-99	LAMP, NEON		CN736	1-695-915-11	TAB (CONTACT)	
				CN738	Δ 1-251-179-11	SOCKET, PICTURE TUBE	

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

CG CB ZR

REF. NO.	PART NO.	DESCRIPTION	REMARK
<DIODE>			
D731	8-719-921-86	DIODE MTZJ-13	
D732	8-719-901-83	DIODE ISS83	
D733	8-719-991-33	DIODE ISS133T-77	
D736	8-719-510-48	DIODE D1N20R	
D737	8-719-921-86	DIODE MTZJ-13	
<IC>			
IC731	8-759-346-42	IC TDA6101Q/N3	
<COIL>			
L731	1-408-429-00	INDUCTOR 470UH	
<NEON LAMP>			
NL731	1-519-108-99	LAMP, NEON	
<RESISTOR>			
R731	1-202-847-00	SOLID 560K 20% 1/2W	
R733	1-202-883-11	SOLID 680K 20% 1/2W	
R734	1-202-818-00	SOLID 1K 20% 1/2W	
R735	1-249-407-11	CARBON 150 5% 1/4W	
R737	1-202-818-00	SOLID 1K 20% 1/2W	
R738	1-202-549-00	SOLID 100 20% 1/2W	
R739	1-215-427-00	METAL 1.8K 1% 1/4W	
R740	1-215-427-00	METAL 1.8K 1% 1/4W	
R741	1-247-815-91	CARBON 220 5% 1/4W	
R742	1-215-903-11	METAL OXIDE 68K 5% 2W	F
R743	1-215-481-00	METAL 330K 1% 1/4W	
<SPARK GAP>			
SG731	1-519-422-11	GAP, SPARK	
SG732	1-519-422-11	GAP, SPARK	
SG733	1-519-422-11	GAP, SPARK	
<CAPACITOR>			
C761	1-161-754-00	CERAMIC 0.001MF 10% 2KV	
C762	1-107-662-11	ELECT 22MF 20% 250V	
C763	1-102-050-00	CERAMIC 0.01MF 500V	
C766	1-107-651-11	ELECT 4.7MF 20% 250V	
C770	1-126-964-11	ELECT 10MF 20% 50V	
C771	1-102-157-00	CERAMIC 560PF 10% 500V	
C772	1-162-115-00	CERAMIC 330PF 10% 2KV	
C773	1-101-005-00	CERAMIC 0.022MF 50V	
C774	1-102-050-00	CERAMIC 0.01MF 500V	
<CONNECTOR>			
CN761	*1-508-784-21	PIN, CONNECTOR (5mm PITCH) 1P	
CN762	*1-564-512-11	PLUG, CONNECTOR 9P	
CN763	*1-564-509-11	PLUG, CONNECTOR 6P	
CN766	1-695-915-11	TAB (CONTACT)	
CN768	Δ 1-251-179-11	SOCKET, PICTURE TUBE	
<DIODE>			
D761	8-719-921-86	DIODE MTZJ-13	
D762	8-719-901-83	DIODE ISS83	

REF. NO.	PART NO.	DESCRIPTION	REMARK
D763	8-719-991-33	DIODE ISS133T-77	
D764	8-719-921-86	DIODE MTZJ-13	
D765	8-719-921-86	DIODE MTZJ-13	
D768	8-719-510-48	DIODE D1N20R	
D769	8-719-921-86	DIODE MTZJ-13	
<IC>			
IC761	8-759-346-42	IC TDA6101Q/N3	
<COIL>			
L761	1-408-429-00	INDUCTOR 470UH	
<NEON LAMP>			
NL760	1-519-108-99	LAMP, NEON	
<RESISTOR>			
R761	1-202-847-00	SOLID 560K 20% 1/2W	
R763	1-202-883-11	SOLID 680K 20% 1/2W	
R764	1-202-818-00	SOLID 1K 20% 1/2W	
R767	1-202-818-00	SOLID 1K 20% 1/2W	
R768	1-202-549-00	SOLID 100 20% 1/2W	
R769	1-215-427-00	METAL 1.8K 1% 1/4W	
R770	1-215-437-00	METAL 4.7K 1% 1/4W	
R771	1-215-427-00	METAL 1.8K 1% 1/4W	
R773	1-215-903-11	METAL OXIDE 68K 5% 2W	F
R774	1-249-407-11	CARBON 150 5% 1/4W	
R775	1-202-549-00	SOLID 100 20% 1/2W	
<SPARK GAP>			
SG761	1-519-422-11	GAP, SPARK	
SG762	1-519-422-11	GAP, SPARK	
SG763	1-519-422-11	GAP, SPARK	
<CAPACITOR>			
C1401	1-162-115-00	CERAMIC 330PF 10% 2KV	
C1402	1-162-115-00	CERAMIC 330PF 10% 2KV	
C1403	1-102-978-00	CERAMIC 220PF 5% 50V	
C1404	1-107-638-11	ELECT 33MF 20% 160V	
C1405	1-104-665-11	ELECT 100MF 20% 25V	
C1406	1-107-370-11	FILM 0.1MF 10% 200V	
C1407	1-104-665-11	ELECT 100MF 20% 25V	
C1408	1-107-362-11	FILM 0.0047MF 10% 200V	
C1409	1-107-667-11	ELECT 2.2MF 20% 160V	
C1410	1-107-362-11	FILM 0.0047MF 10% 200V	
C1411	1-137-364-11	FILM 0.001MF 5% 50V	
C1412	1-137-364-11	FILM 0.001MF 5% 50V	
C1413	1-161-830-00	CERAMIC 0.0047MF 500V	
C1414	1-104-661-91	ELECT 330MF 20% 16V	
C1415	1-102-947-00	CERAMIC 10PF 0.5PF 50V	
C1416	1-102-973-00	CERAMIC 100PF 5% 50V	
<CONNECTOR>			
CN1411	*1-580-689-11	PIN, CONNECTOR (PC BOARD) Φ	

* A-1331-534-A CB BOARD, COMPLETE

* A-1390-594-A ZR BOARD, COMPLETE

4-382-854-11 SCREW (M3X10), P, SW (+)

ZR **ZG** **ZB** **B**

REF. NO.	PART NO.	DESCRIPTION	REMARK
CN1412	* 1-564-507-11	PLUG, CONNECTOR 4P	
CN1413	* 1-564-506-11	PLUG, CONNECTOR 3P	
CN1414	* 1-564-509-11	PLUG, CONNECTOR 6P	
CN1415	* 1-564-510-11	PLUG, CONNECTOR 7P	
CN1416	1-695-915-11	TAB (CONTACT)	
<DIODE>			
D1401	8-719-110-88	DIODE RD39ESB2	
D1402	8-719-110-88	DIODE RD39ESB2	
<TRANSISTOR>			
Q1401	8-729-017-06	TRANSISTOR 2SC4793	
Q1402	8-729-017-05	TRANSISTOR 2SA1837	
Q1403	8-729-140-96	TRANSISTOR 2SD774-34	

<RESISTOR>			
R1401	1-249-414-11	CARBON 560	5% 1/4W
R1402	1-249-414-11	CARBON 560	5% 1/4W
R1403	1-202-822-00	SOLID 2.2K	20% 1/2W
R1404	1-202-822-00	SOLID 2.2K	20% 1/2W
R1405	1-249-417-11	CARBON 1K	5% 1/4W
R1406	1-216-479-11	METAL OXIDE 560	5% 3W F
R1407	1-249-400-11	CARBON 39	5% 1/4W F
R1408	1-249-384-11	CARBON 1.8	5% 1/4W F
R1409	1-249-384-11	CARBON 1.8	5% 1/4W F
R1410	1-260-311-11	CARBON 39	5% 1/2W
R1411	1-249-417-11	CARBON 1K	5% 1/4W F
R1412	1-249-414-11	CARBON 560	5% 1/4W
R1413	1-249-432-11	CARBON 18K	5% 1/4W
R1414	1-249-432-11	CARBON 18K	5% 1/4W
R1415	1-249-414-11	CARBON 560	5% 1/4W F
R1416	1-216-451-11	METAL OXIDE 120	5% 2W F
R1417	1-216-475-11	METAL OXIDE 120	5% 3W F
R1418	1-249-377-11	CARBON 0.47	5% 1/4W F
R1419	1-249-409-11	CARBON 220	5% 1/4W
R1420	1-216-475-11	METAL OXIDE 120	5% 3W F
R1421	1-249-417-11	CARBON 1K	5% 1/4W

 * A-1390-595-A ZG BOARD, COMPLETE

<CAPACITOR>			
C1431	1-162-115-00	CERAMIC 330PF	10% 2KV
C1432	1-162-115-00	CERAMIC 330PF	10% 2KV
C1433	1-102-973-00	CERAMIC 100PF	5% 50V
<CONNECTOR>			
CN1441	* 1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P	
CN1442	* 1-564-507-11	PLUG, CONNECTOR 4P	
CN1443	* 1-564-506-11	PLUG, CONNECTOR 3P	
CN1445	* 1-564-510-11	PLUG, CONNECTOR 7P	
<RESISTOR>			
R1431	1-249-414-11	CARBON 560	5% 1/4W
R1432	1-249-414-11	CARBON 560	5% 1/4W
R1433	1-202-822-00	SOLID 2.2K	20% 1/2W
R1434	1-202-822-00	SOLID 2.2K	20% 1/2W
R1435	1-216-475-11	METAL OXIDE 120	5% 3W F
R1436	1-216-475-11	METAL OXIDE 120	5% 3W F
R1437	1-249-417-11	CARBON 1K	5% 1/4W

REF. NO.	PART NO.	DESCRIPTION	REMARK

* A-1390-596-A ZB BOARD, COMPLETE			

<CAPACITOR>			
C1461	1-162-115-00	CERAMIC 330PF	10% 2KV
C1462	1-162-115-00	CERAMIC 330PF	10% 2KV
<CONNECTOR>			
CN1471	* 1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P	
CN1472	* 1-564-507-11	PLUG, CONNECTOR 4P	
CN1473	* 1-564-506-11	PLUG, CONNECTOR 3P	
<RESISTOR>			
R1461	1-249-414-11	CARBON 560	5% 1/4W
R1462	1-249-414-11	CARBON 560	5% 1/4W
R1463	1-202-822-00	SOLID 2.2K	20% 1/2W
R1464	1-202-822-00	SOLID 2.2K	20% 1/2W
R1465	1-216-475-11	METAL OXIDE 120	5% 3W F
R1466	1-216-475-11	METAL OXIDE 120	5% 3W F

* A-1621-061-A B BOARD, COMPLETE			

<CAPACITOR>			
C1	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C2	1-126-933-11	ELECT 100MF	20% 16V
C3	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C4	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C5	1-164-182-11	CERAMIC CHIP 0.0033MF	10% 50V
C6	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C7	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C8	1-163-089-00	CERAMIC CHIP 6PF	0.5PF 50V
C9	1-126-967-11	ELECT 47MF	20% 16V
C10	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C11	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C12	1-163-231-11	CERAMIC CHIP 15PF	5% 50V
C13	1-163-231-11	CERAMIC CHIP 15PF	5% 50V
C14	1-164-182-11	CERAMIC CHIP 0.0033MF	10% 50V
C15	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C16	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C17	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C18	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C19	1-126-967-11	ELECT 47MF	20% 16V
C20	1-164-346-11	CERAMIC CHIP 1MF	16V
C21	1-164-346-11	CERAMIC CHIP 1MF	16V
C22	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C23	1-126-959-11	ELECT 0.47MF	20% 50V
C24	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C25	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C26	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C27	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C28	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C29	1-126-963-11	ELECT 4.7MF	20% 50V
C30	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C31	1-126-935-11	ELECT 470MF	20% 16V
C32	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C33	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C34	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C35	1-126-964-11	ELECT 10MF	20% 50V
C36	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V

B

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C37	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C114	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C38	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C115	1-126-960-11	ELECT 1MF	20% 50V
C39	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C116	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C40	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C117	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C41	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C118	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C42	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C119	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C43	1-126-964-11	ELECT 10MF	20% 50V	C120	1-163-235-11	CERAMIC CHIP 22PF	5% 50V
C44	1-126-967-11	ELECT 47MF	20% 16V	C121	1-163-235-11	CERAMIC CHIP 22PF	5% 50V
C45	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C122	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C46	1-126-967-11	ELECT 47MF	20% 16V	C123	1-164-346-11	CERAMIC CHIP 1MF	16V
C47	1-126-967-11	ELECT 47MF	20% 16V	C125	1-163-019-00	CERAMIC CHIP 0.0068MF	10% 50V
C48	1-126-933-11	ELECT 100MF	20% 16V	C126	1-126-964-11	ELECT 10MF	20% 50V
C49	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C127	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V
C50	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C128	1-163-237-11	CERAMIC CHIP 27PF	5% 50V
C51	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C129	1-126-960-11	ELECT 1MF	20% 50V
C52	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C130	1-163-259-91	CERAMIC CHIP 220PF	5% 50V
C53	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C201	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C54	1-126-967-11	ELECT 47MF	20% 16V	C202	1-126-964-11	ELECT 10MF	20% 50V
C55	1-126-933-11	ELECT 100MF	20% 16V	C203	1-126-964-11	ELECT 10MF	20% 50V
C56	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C204	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C57	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C205	1-163-235-11	CERAMIC CHIP 22PF	5% 50V
C58	1-126-964-11	ELECT 10MF	20% 50V	C206	1-163-259-91	CERAMIC CHIP 220PF	5% 50V
C59	1-163-251-11	CERAMIC CHIP 100PF	5% 50V	C207	1-163-989-11	CERAMIC CHIP 0.033MF	10% 25V
C60	1-163-227-11	CERAMIC CHIP 10PF	0.5PF 50V	C208	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C61	1-163-227-11	CERAMIC CHIP 10PF	0.5PF 50V	C209	1-163-227-11	CERAMIC CHIP 10PF	0.5PF 50V
C62	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C210	1-163-227-11	CERAMIC CHIP 10PF	0.5PF 50V
C63	1-126-933-11	ELECT 100MF	20% 16V	C211	1-163-259-91	CERAMIC CHIP 220PF	5% 50V
C64	1-163-249-11	CERAMIC CHIP 82PF	5% 50V	C212	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C65	1-126-967-11	ELECT 47MF	20% 16V	C213	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C66	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C214	1-163-227-11	CERAMIC CHIP 10PF	0.5PF 50V
C67	1-126-933-11	ELECT 100MF	20% 16V	C215	1-163-259-91	CERAMIC CHIP 220PF	5% 50V
C68	1-126-933-11	ELECT 100MF	20% 16V	C216	1-163-227-11	CERAMIC CHIP 10PF	0.5PF 50V
C69	1-126-967-11	ELECT 47MF	20% 16V	C217	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C70	1-126-933-11	ELECT 100MF	20% 16V	C219	1-126-301-11	ELECT 1MF	20% 50V
C71	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C220	1-126-301-11	ELECT 1MF	20% 50V
C73	1-126-935-11	ELECT 470MF	20% 16V	C221	1-126-967-11	ELECT 47MF	20% 16V
C75	1-163-251-11	CERAMIC CHIP 100PF	5% 50V	C223	1-164-346-11	CERAMIC CHIP 1MF	16V
C78	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C224	1-126-964-11	ELECT 10MF	20% 50V
C80	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C225	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C81	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C226	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C82	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C227	1-163-229-11	CERAMIC CHIP 12PF	5% 50V
C83	1-126-967-11	ELECT 47MF	20% 16V	C228	1-163-231-11	CERAMIC CHIP 15PF	5% 50V
C84	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C229	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C85	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C230	1-126-967-11	ELECT 47MF	20% 16V
C86	1-163-231-11	CERAMIC CHIP 15PF	5% 50V	C231	1-163-259-91	CERAMIC CHIP 220PF	5% 50V
C87	1-163-235-11	CERAMIC CHIP 22PF	5% 50V	C232	1-163-121-00	CERAMIC CHIP 150PF	5% 50V
C88	1-163-231-11	CERAMIC CHIP 15PF	5% 50V	C233	1-163-121-00	CERAMIC CHIP 150PF	5% 50V
C89	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C236	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C90	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C237	1-126-963-11	ELECT 4.7MF	20% 50V
C91	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V	C238	1-163-243-11	CERAMIC CHIP 47PF	5% 50V
C94	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V	C239	1-163-127-00	CERAMIC CHIP 270PF	5% 50V
C95	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C241	1-163-243-11	CERAMIC CHIP 47PF	5% 50V
C96	1-163-235-11	CERAMIC CHIP 22PF	5% 50V	C242	1-126-956-91	ELECT 0.1MF	20% 50V
C97	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C243	1-126-963-11	ELECT 4.7MF	20% 50V
C99	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C245	1-163-243-11	CERAMIC CHIP 47PF	5% 50V
C100	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C246	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C101	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C247	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C102	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C249	1-126-960-11	ELECT 1MF	20% 50V
C103	1-163-235-11	CERAMIC CHIP 22PF	5% 50V	C250	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C104	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C251	1-126-964-11	ELECT 10MF	20% 50V
C105	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C253	1-163-033-00	CERAMIC CHIP 0.022MF	50V
C106	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C254	1-163-035-00	CERAMIC CHIP 0.047MF	50V
C107	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C255	1-163-035-00	CERAMIC CHIP 0.047MF	50V
C108	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C256	1-163-035-00	CERAMIC CHIP 0.047MF	50V
C109	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C257	1-164-346-11	CERAMIC CHIP 1MF	16V
C110	1-126-933-11	ELECT 100MF	20% 16V	C258	1-110-501-11	CERAMIC CHIP 0.33MF	10% 16V
C111	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C259	1-126-960-11	ELECT 1MF	20% 50V
C112	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C260	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C113	1-164-182-11	CERAMIC CHIP 0.0033MF	10% 50V	C261	1-126-967-11	ELECT 47MF	20% 16V

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C262	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C335	1-164-346-11	CERAMIC CHIP 1MF	16V
C263	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C336	1-163-007-11	CERAMIC CHIP 680PF	10% 50V
C264	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C337	1-163-007-11	CERAMIC CHIP 680PF	10% 50V
C266	1-163-239-11	CERAMIC CHIP 33PF	5% 50V	C338	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C267	1-126-964-11	ELECT 10MF	20% 50V	C339	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V
C268	1-126-964-11	ELECT 10MF	20% 50V	C340	1-163-007-11	CERAMIC CHIP 680PF	10% 50V
C269	1-126-964-11	ELECT 10MF	20% 50V	C341	1-163-003-11	CERAMIC CHIP 330PF	10% 50V
C270	1-126-767-11	ELECT 1000MF	20% 16V	C342	1-126-964-11	ELECT 10MF	20% 50V
C271	1-126-967-11	ELECT 47MF	20% 16V	C343	1-163-003-11	CERAMIC CHIP 330PF	10% 50V
C272	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C344	1-163-096-00	CERAMIC CHIP 13PF	5% 50V
C273	1-163-099-00	CERAMIC CHIP 18PF	5% 50V	C345	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V
C274	1-163-099-00	CERAMIC CHIP 18PF	5% 50V	C347	1-163-231-11	CERAMIC CHIP 15PF	5% 50V
C275	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C348	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C276	1-126-964-11	ELECT 10MF	20% 50V	C349	1-163-007-11	CERAMIC CHIP 680PF	10% 50V
C277	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C350	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C278	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C351	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C279	1-164-346-11	CERAMIC CHIP 1MF	16V	C352	1-126-964-11	ELECT 10MF	20% 50V
C280	1-164-346-11	CERAMIC CHIP 1MF	16V	C353	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C281	1-164-346-11	CERAMIC CHIP 1MF	16V	C354	1-126-964-11	ELECT 10MF	20% 50V
C282	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C355	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C283	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C356	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C284	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C358	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C285	1-164-346-11	CERAMIC CHIP 1MF	16V	C359	1-163-005-11	CERAMIC CHIP 470PF	10% 50V
C286	1-164-346-11	CERAMIC CHIP 1MF	16V	C360	1-163-005-11	CERAMIC CHIP 470PF	10% 50V
C287	1-164-346-11	CERAMIC CHIP 1MF	16V	C361	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C288	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C362	1-126-967-11	ELECT 47MF	20% 16V
C289	1-126-963-11	ELECT 4.7MF	20% 50V	C363	1-126-964-11	ELECT 10MF	20% 50V
C290	1-126-301-11	ELECT 1MF	20% 50V	C364	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C291	1-126-964-11	ELECT 10MF	20% 50V	C365	1-126-963-11	ELECT 4.7MF	20% 50V
C293	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C366	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V
C294	1-104-664-11	ELECT 47MF	20% 25V	C367	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C296	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C368	1-126-967-11	ELECT 47MF	20% 16V
C297	1-126-967-11	ELECT 47MF	20% 16V	C369	1-164-222-11	CERAMIC CHIP 0.22MF	25V
C298	1-126-935-11	ELECT 470MF	20% 16V	C370	1-126-964-11	ELECT 10MF	20% 50V
C299	1-163-251-11	CERAMIC CHIP 100PF	5% 50V	C371	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C300	1-126-964-11	ELECT 10MF	20% 50V	C372	1-126-964-11	ELECT 10MF	20% 50V
C301	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C374	1-126-964-11	ELECT 10MF	20% 50V
C302	1-163-113-00	CERAMIC CHIP 68PF	5% 50V	C375	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C303	1-163-251-11	CERAMIC CHIP 100PF	5% 50V	C376	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C304	1-126-967-11	ELECT 47MF	20% 16V	C377	1-163-007-11	CERAMIC CHIP 680PF	10% 50V
C306	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C378	1-126-959-11	ELECT 0.47MF	20% 50V
C307	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C379	1-126-935-11	ELECT 470MF	20% 16V
C308	1-163-241-11	CERAMIC CHIP 39PF	5% 50V	C380	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C309	1-163-139-00	CERAMIC CHIP 820PF	5% 50V	C382	1-216-295-00	CONDUCTOR, CHIP	
C310	1-163-033-00	CERAMIC CHIP 0.022MF	50V	C385	1-216-295-00	CONDUCTOR, CHIP	
C311	1-126-933-11	ELECT 100MF	20% 16V	C387	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C312	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V	C388	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C313	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C389	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C314	1-126-935-11	ELECT 470MF	20% 16V	C391	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C315	1-126-933-11	ELECT 100MF	20% 16V	C416	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C316	1-126-960-11	ELECT 1MF	20% 50V	C538	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C317	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C539	1-126-967-11	ELECT 47MF	20% 16V
C318	1-163-007-11	CERAMIC CHIP 680PF	10% 50V	C540	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C320	1-164-222-11	CERAMIC CHIP 0.22MF	25V	C541	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C321	1-126-933-11	ELECT 100MF	20% 16V	C542	1-126-301-11	ELECT 1MF	20% 50V
C322	1-163-113-00	CERAMIC CHIP 68PF	5% 50V	C543	1-163-001-11	CERAMIC CHIP 220PF	10% 50V
C323	1-126-934-11	ELECT 220MF	20% 16V	C544	1-126-967-11	ELECT 47MF	20% 16V
C324	1-163-113-00	CERAMIC CHIP 68PF	5% 50V	C545	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C325	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C546	1-163-259-91	CERAMIC CHIP 220PF	5% 50V
C326	1-163-251-11	CERAMIC CHIP 100PF	5% 50V	C547	1-126-301-11	ELECT 1MF	20% 50V
C327	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V	C548	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C328	1-126-964-11	ELECT 10MF	20% 50V	C549	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C329	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C601	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C330	1-126-964-11	ELECT 10MF	20% 50V	C602	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C331	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V	C603	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C332	1-126-964-11	ELECT 10MF	20% 50V	C604	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C333	1-126-964-11	ELECT 10MF	20% 50V	C605	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V
C334	1-164-346-11	CERAMIC CHIP 1MF	16V	C606	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V

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REF. NO.	PART NO.	DESCRIPTION	REMARK
C607	1-110-501-11	CERAMIC CHIP 0.33MF	10% 16V
C608	1-163-037-11	CERAMIC CHIP 0.022MF	10% 50V
C609	1-126-967-11	ELECT 47MF	20% 50V
C610	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C611	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C612	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V
C613	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V
C614	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C615	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C616	1-126-967-11	ELECT 47MF	20% 50V
C617	1-164-222-11	CERAMIC CHIP 0.22MF	25V
C618	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V
C620	1-126-960-11	ELECT 1MF	20% 50V
C621	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C622	1-113-503-11	CERAMIC CHIP 0.0039MF	5% 25V
C623	1-126-960-11	ELECT 1MF	20% 50V
C624	1-126-934-11	ELECT 220MF	20% 16V
C625	1-164-695-11	CERAMIC CHIP 0.0022MF	5% 50V
C626	1-163-139-00	CERAMIC CHIP 820PF	5% 50V
C627	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C628	1-163-012-00	CERAMIC CHIP 0.0018MF	5% 50V
C629	1-113-503-11	CERAMIC CHIP 0.0039MF	5% 25V
C630	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C631	1-163-127-00	CERAMIC CHIP 270PF	5% 50V
C632	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
<FILTER>			
CF401	1-409-327-00	TRAP, CERAMIC (6.5MHZ)	
<CONNECTOR>			
CN1	* 1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)	
CN2	* 1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)	
CN3	* 1-564-521-11	PLUG, CONNECTOR 6P	
CN4	1-695-301-11	CONNECTOR, BOARD TO BOARD 40P	
CN5	1-564-523-11	PLUG, CONNECTOR 8P	
CN201	* 1-564-512-11	PLUG, CONNECTOR 9P	
CN202	* 1-564-506-11	PLUG, CONNECTOR 3P	
CN203	1-564-511-11	PLUG, CONNECTOR 8P	
CN204	* 1-564-514-11	PLUG, CONNECTOR 11P	
CN205	* 1-564-507-11	PLUG, CONNECTOR 4P	
CN206	* 1-564-510-11	PLUG, CONNECTOR 7P	
CN601	* 1-564-508-11	PLUG, CONNECTOR 5P	
<DIODE>			
D1	8-719-914-44	DIODE DAP202K	
D2	8-719-914-44	DIODE DAP202K	
D3	8-719-914-43	DIODE DAN202K	
D4	8-719-914-43	DIODE DAN202K	
D201	8-719-914-43	DIODE DAN202K	
D202	8-719-914-43	DIODE DAN202K	
D203	8-719-914-43	DIODE DAN202K	
D204	8-719-914-43	DIODE DAN202K	
D205	8-719-914-43	DIODE DAN202K	
D206	8-719-914-43	DIODE DAN202K	
D207	8-719-106-23	DIODE RD7.5M-B2	
D208	8-719-914-43	DIODE DAN202K	
D209	8-719-047-37	DIODE BAS16	
D210	8-719-047-37	DIODE BAS16	
D211	8-719-914-43	DIODE DAN202K	
D212	8-719-914-43	DIODE DAN202K	
D215	8-719-914-43	DIODE DAN202K	
D217	8-719-914-43	DIODE DAN202K	
D218	8-719-914-43	DIODE DAN202K	
D220	8-719-914-43	DIODE DAN202K	
D221	8-719-914-43	DIODE DAN202K	
D222	8-719-914-43	DIODE DAN202K	

REF. NO.	PART NO.	DESCRIPTION	REMARK
D223	8-719-914-43	DIODE DAN202K	
D224	8-719-914-43	DIODE DAN202K	
D225	8-719-914-43	DIODE DAN202K	
D226	8-719-914-43	DIODE DAN202K	
D227	8-719-914-43	DIODE DAN202K	
D602	8-719-914-43	DIODE DAN202K	
<DELAY LINE>			
DL201	1-415-810-11	DELAY LINE	
<FERRITE BEAD>			
FB1	1-412-911-11	INDUCTOR, FERRITE BEAD	
FB2	1-412-911-11	INDUCTOR, FERRITE BEAD	
<FILTER>			
FL1	1-236-620-11	FILTER, LOW PASS	
FL2	1-236-620-11	FILTER, LOW PASS	
FL3	1-236-620-11	FILTER, LOW PASS	
FL201	1-239-803-11	FILTER, EMI	
<IC>			
IC1	8-752-372-78	IC CXD2024AQ	
IC2	8-759-711-62	IC NJM2240M	
IC3	8-759-439-58	IC TDA9143/N2	
IC4	8-759-710-29	IC NJM2235M	
IC5	8-759-288-85	IC TDA4665T-T	
IC6	8-759-324-35	IC SDA9188-3XPGE	
IC7	8-759-248-15	IC SDA9187-2XGEG	
IC8	8-759-183-35	IC TDA9160A	
IC10	8-759-288-85	IC TDA4665T-T	
IC201	8-759-370-64	IC TPU3040-TC20	
IC202	8-759-710-07	IC NJM2234M(T1)	
IC203	8-759-341-71	IC MB814100A-70PJ-T6	
IC204	8-759-277-89	IC ST24C16CMI-TR/A	
IC205	8-759-041-54	IC MN1382S	
IC206	8-759-275-36	IC TDA4780/V3	
IC207	8-752-873-89	IC CXP85460-033Q	
IC208	8-752-012-52	IC CX20125	
IC209	8-759-085-34	IC TDA2822D	
IC210	8-759-008-67	IC MC14066BF	
IC211	8-759-011-65	IC MC74HC4053F	
IC212	8-759-376-80	IC MSP3410B-PS-F7-T	
IC213	8-759-998-98	IC LM358D	
IC214	8-759-037-79	IC MC74HC163AF	
IC601	8-752-347-92	IC CXD2018Q	
IC602	8-759-998-98	IC LM358D	
IC603	8-759-083-85	IC LA7856A	
<CHIP CONDUCTOR>			
JR202	1-216-295-00	CONDUCTOR, CHIP	
JR203	1-216-295-00	CONDUCTOR, CHIP	
<COIL>			
L1	1-414-235-11	INDUCTOR, FERRITE BEAD	
L2	1-414-235-11	INDUCTOR, FERRITE BEAD	
L3	1-414-235-11	INDUCTOR, FERRITE BEAD	
L4	1-414-235-11	INDUCTOR, FERRITE BEAD	
L5	1-414-235-11	INDUCTOR, FERRITE BEAD	
L6	1-414-235-11	INDUCTOR, FERRITE BEAD	
L7	1-408-417-00	INDUCTOR 47UH	
L8	1-408-421-00	INDUCTOR 100UH	
L9	1-216-295-00	CONDUCTOR, CHIP	
L10	1-408-417-00	INDUCTOR 47UH	

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
L11	1-414-235-11	INDUCTOR, FERRITE BEAD		Q19	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L12	1-408-421-00	INDUCTOR 100UH		Q20	8-729-216-22	TRANSISTOR 2SA1162-G	
L13	1-216-295-00	CONDUCTOR, CHIP		Q22	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L14	1-408-418-00	INDUCTOR 56UH		Q23	8-729-216-22	TRANSISTOR 2SA1162-G	
L15	1-408-409-00	INDUCTOR 10UH					
L16	1-414-235-11	INDUCTOR, FERRITE BEAD		Q24	8-729-216-22	TRANSISTOR 2SA1162-G	
L17	1-414-235-11	INDUCTOR, FERRITE BEAD		Q25	8-729-216-22	TRANSISTOR 2SA1162-G	
L18	1-414-235-11	INDUCTOR, FERRITE BEAD		Q26	8-729-216-22	TRANSISTOR 2SA1162-G	
L19	1-414-235-11	INDUCTOR, FERRITE BEAD		Q27	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L20	1-414-235-11	INDUCTOR, FERRITE BEAD		Q28	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L21	1-408-417-00	INDUCTOR 47UH		Q29	8-729-027-59	TRANSISTOR DTC144EKA-T146	
L22	1-414-235-11	INDUCTOR, FERRITE BEAD		Q30	8-729-216-22	TRANSISTOR 2SA1162-G	
L23	1-216-295-00	CONDUCTOR, CHIP		Q32	8-729-216-22	TRANSISTOR 2SA1162-G	
L24	1-412-533-21	INDUCTOR 47UH		Q33	8-729-216-22	TRANSISTOR 2SA1162-G	
L25	1-408-417-00	INDUCTOR 47UH		Q34	8-729-216-22	TRANSISTOR 2SA1162-G	
L26	1-216-295-00	CONDUCTOR, CHIP		Q35	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L27	1-216-295-00	CONDUCTOR, CHIP		Q36	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L28	1-216-295-00	CONDUCTOR, CHIP		Q37	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L29	1-216-295-00	CONDUCTOR, CHIP		Q38	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L30	1-216-295-00	CONDUCTOR, CHIP		Q41	8-729-027-59	TRANSISTOR DTC144EKA-T146	
L31	1-216-295-00	CONDUCTOR, CHIP		Q42	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L32	1-216-295-00	CONDUCTOR, CHIP		Q43	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L33	1-216-295-00	CONDUCTOR, CHIP		Q44	8-729-216-22	TRANSISTOR 2SA1162-G	
L34	1-216-295-00	CONDUCTOR, CHIP		Q45	8-729-216-22	TRANSISTOR 2SA1162-G	
L35	1-216-295-00	CONDUCTOR, CHIP		Q46	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L36	1-216-295-00	CONDUCTOR, CHIP		Q47	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L201	1-414-234-11	INDUCTOR, FERRITE BEAD		Q48	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L202	1-408-417-00	INDUCTOR 47UH		Q49	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L203	1-408-409-00	INDUCTOR 10UH		Q52	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L204	1-408-417-00	INDUCTOR 47UH		Q201	8-729-216-22	TRANSISTOR 2SA1162-G	
L205	1-408-409-00	INDUCTOR 10UH		Q202	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L206	1-408-405-00	INDUCTOR 4.7UH		Q203	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L207	1-408-417-00	INDUCTOR 47UH		Q204	8-729-216-22	TRANSISTOR 2SA1162-G	
L208	1-408-409-00	INDUCTOR 10UH		Q205	8-729-216-22	TRANSISTOR 2SA1162-G	
L209	1-408-417-00	INDUCTOR 47UH		Q206	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L210	1-408-417-00	INDUCTOR 47UH		Q207	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L211	1-408-417-00	INDUCTOR 47UH		Q208	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L212	1-408-417-00	INDUCTOR 47UH		Q209	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L213	1-408-417-00	INDUCTOR 47UH		Q210	8-729-216-22	TRANSISTOR 2SA1162-G	
L214	1-408-409-00	INDUCTOR 10UH		Q211	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L215	1-414-234-11	INDUCTOR, FERRITE BEAD		Q212	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L216	1-408-406-00	INDUCTOR 5.6UH		Q213	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L217	1-408-409-00	INDUCTOR 10UH		Q214	8-729-216-22	TRANSISTOR 2SA1162-G	
L218	1-414-235-11	INDUCTOR, FERRITE BEAD		Q215	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L219	1-408-417-00	INDUCTOR 47UH		Q216	8-729-216-22	TRANSISTOR 2SA1162-G	
L220	1-408-417-00	INDUCTOR 47UH		Q218	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L221	1-408-397-00	INDUCTOR 1UH		Q221	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L601	1-408-417-00	INDUCTOR 47UH		Q222	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L602	1-408-417-00	INDUCTOR 47UH		Q225	8-729-027-59	TRANSISTOR DTC144EKA-T146	
L603	1-408-409-00	INDUCTOR 10UH		Q226	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
<TRANSISTOR>				Q227	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q228	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2	8-729-216-22	TRANSISTOR 2SA1162-G		Q229	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q3	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q230	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6	8-729-216-22	TRANSISTOR 2SA1162-G		Q231	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q7	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q232	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q233	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q9	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q234	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q10	8-729-216-22	TRANSISTOR 2SA1162-G		Q235	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q11	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q236	8-729-216-22	TRANSISTOR 2SA1162-G	
Q12	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q237	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q13	8-729-027-59	TRANSISTOR DTC144EKA-T146		Q238	8-729-216-22	TRANSISTOR 2SA1162-G	
Q14	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q239	8-729-216-22	TRANSISTOR 2SA1162-G	
Q15	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q240	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q16	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q241	8-729-216-22	TRANSISTOR 2SA1162-G	
Q17	8-729-027-59	TRANSISTOR DTC144EKA-T146		Q242	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q18	8-729-216-22	TRANSISTOR 2SA1162-G		Q243	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
				Q244	8-729-216-22	TRANSISTOR 2SA1162-G	
				Q245	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
				Q246	8-729-120-28	TRANSISTOR 2SC1623-L5L6	

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R95	1-216-043-91	METAL GLAZE 560	5%	1/10W	R184	1-216-049-00	METAL GLAZE 1K 5% 1/10W
R96	1-216-025-00	METAL GLAZE 100	5%	1/10W	R185	1-216-073-00	METAL GLAZE 10K 5% 1/10W
R97	1-216-025-00	METAL GLAZE 100	5%	1/10W	R186	1-216-039-00	METAL GLAZE 390 5% 1/10W
R98	1-216-089-00	METAL GLAZE 47K	5%	1/10W	R188	1-216-043-91	METAL GLAZE 560 5% 1/10W
R99	1-216-045-00	METAL GLAZE 680	5%	1/10W	R189	1-216-049-00	METAL GLAZE 1K 5% 1/10W
R100	1-216-295-00	CONDUCTOR, CHIP			R190	1-216-025-00	METAL GLAZE 100 5% 1/10W
R101	1-216-033-00	METAL GLAZE 220	5%	1/10W	R191	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W
R102	1-216-089-00	METAL GLAZE 47K	5%	1/10W	R192	1-216-049-00	METAL GLAZE 1K 5% 1/10W
R105	1-216-025-00	METAL GLAZE 100	5%	1/10W	R193	1-216-081-00	METAL GLAZE 22K 5% 1/10W
R106	1-216-025-00	METAL GLAZE 100	5%	1/10W	R194	1-216-025-00	METAL GLAZE 100 5% 1/10W
R107	1-216-089-00	METAL GLAZE 47K	5%	1/10W	R195	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W
R108	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W	R196	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W
R109	1-216-049-00	METAL GLAZE 1K	5%	1/10W	R197	1-216-025-00	METAL GLAZE 100 5% 1/10W
R110	1-216-025-00	METAL GLAZE 100	5%	1/10W	R198	1-216-025-00	METAL GLAZE 100 5% 1/10W
R111	1-216-049-00	METAL GLAZE 1K	5%	1/10W	R199	1-216-025-00	METAL GLAZE 100 5% 1/10W
R113	1-216-073-00	METAL GLAZE 10K	5%	1/10W	R201	1-216-049-00	METAL GLAZE 1K 5% 1/10W
R114	1-216-025-91	METAL GLAZE 100	5%	1/10W	R202	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W
R116	1-216-041-00	METAL GLAZE 470	5%	1/10W	R203	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W
R117	1-216-046-00	METAL GLAZE 750	5%	1/10W	R204	1-216-049-00	METAL GLAZE 1K 5% 1/10W
R118	1-216-025-00	METAL GLAZE 100	5%	1/10W	R205	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W
R119	1-216-049-00	METAL GLAZE 1K	5%	1/10W	R206	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W
R120	1-216-295-00	CONDUCTOR, CHIP			R207	1-216-025-00	METAL GLAZE 100 5% 1/10W
R121	1-216-041-00	METAL GLAZE 470	5%	1/10W	R208	1-216-022-00	METAL GLAZE 75 5% 1/10W
R122	1-216-025-00	METAL GLAZE 100	5%	1/10W	R209	1-216-073-00	METAL GLAZE 10K 5% 1/10W
R123	1-216-295-00	CONDUCTOR, CHIP			R210	1-216-081-00	METAL GLAZE 22K 5% 1/10W
R124	1-216-073-00	METAL GLAZE 10K	5%	1/10W	R211	1-216-063-91	METAL GLAZE 3.9K 5% 1/10W
R125	1-216-295-91	CONDUCTOR, CHIP			R212	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W
R127	1-216-025-00	METAL GLAZE 100	5%	1/10W	R213	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W
R128	1-216-025-00	METAL GLAZE 100	5%	1/10W	R214	1-216-033-00	METAL GLAZE 220 5% 1/10W
R130	1-216-049-91	METAL GLAZE 1K	5%	1/10W	R215	1-216-041-00	METAL GLAZE 470 5% 1/10W
R131	1-216-049-91	METAL GLAZE 1K	5%	1/10W	R216	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W
R133	1-216-025-00	METAL GLAZE 100	5%	1/10W	R217	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W
R134	1-216-025-00	METAL GLAZE 100	5%	1/10W	R218	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W
R136	1-216-025-00	METAL GLAZE 100	5%	1/10W	R219	1-216-025-00	METAL GLAZE 100 5% 1/10W
R137	1-216-025-00	METAL GLAZE 100	5%	1/10W	R220	1-216-049-00	METAL GLAZE 1K 5% 1/10W
R138	1-216-043-91	METAL GLAZE 560	5%	1/10W	R221	1-216-033-00	METAL GLAZE 220 5% 1/10W
R140	1-216-085-00	METAL GLAZE 33K	5%	1/10W	R222	1-216-041-00	METAL GLAZE 470 5% 1/10W
R142	1-216-075-00	METAL GLAZE 12K	5%	1/10W	R223	1-216-073-00	METAL GLAZE 10K 5% 1/10W
R143	1-216-025-00	METAL GLAZE 100	5%	1/10W	R224	1-216-081-00	METAL GLAZE 22K 5% 1/10W
R144	1-216-049-91	METAL GLAZE 1K	5%	1/10W	R225	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W
R146	1-216-043-91	METAL GLAZE 560	5%	1/10W	R226	1-216-063-91	METAL GLAZE 3.9K 5% 1/10W
R147	1-216-025-00	METAL GLAZE 100	5%	1/10W	R227	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W
R148	1-216-047-91	METAL GLAZE 820	5%	1/10W	R228	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W
R154	1-216-089-00	METAL GLAZE 47K	5%	1/10W	R229	1-216-089-00	METAL GLAZE 47K 5% 1/10W
R155	1-216-295-91	CONDUCTOR, CHIP			R230	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W
R156	1-216-049-00	METAL GLAZE 1K	5%	1/10W	R231	1-216-033-00	METAL GLAZE 220 5% 1/10W
R158	1-216-043-91	METAL GLAZE 560	5%	1/10W	R232	1-216-041-00	METAL GLAZE 470 5% 1/10W
R159	1-216-043-91	METAL GLAZE 560	5%	1/10W	R233	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W
R162	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W	R234	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W
R163	1-216-079-00	METAL GLAZE 18K	5%	1/10W	R235	1-216-025-00	METAL GLAZE 100 5% 1/10W
R164	1-216-079-00	METAL GLAZE 18K	5%	1/10W	R236	1-216-033-00	METAL GLAZE 220 5% 1/10W
R165	1-216-073-00	METAL GLAZE 10K	5%	1/10W	R237	1-216-073-00	METAL GLAZE 10K 5% 1/10W
R166	1-216-083-00	METAL GLAZE 27K	5%	1/10W	R238	1-216-081-00	METAL GLAZE 22K 5% 1/10W
R167	1-216-045-00	METAL GLAZE 680	5%	1/10W	R239	1-216-295-00	CONDUCTOR, CHIP 5% 1/10W
R168	1-216-295-91	CONDUCTOR, CHIP			R240	1-216-033-00	METAL GLAZE 220 5% 1/10W
R169	1-216-025-00	METAL GLAZE 100	5%	1/10W	R241	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W
R170	1-216-025-00	METAL GLAZE 100	5%	1/10W	R242	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W
R171	1-216-025-00	METAL GLAZE 100	5%	1/10W	R243	1-216-073-00	METAL GLAZE 10K 5% 1/10W
R172	1-216-039-00	METAL GLAZE 390	5%	1/10W	R244	1-216-073-00	METAL GLAZE 10K 5% 1/10W
R173	1-216-049-00	METAL GLAZE 1K	5%	1/10W	R245	1-216-049-00	METAL GLAZE 1K 5% 1/10W
R174	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W	R247	1-216-063-91	METAL GLAZE 3.9K 5% 1/10W
R175	1-216-081-00	METAL GLAZE 22K	5%	1/10W	R248	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W
R176	1-216-049-00	METAL GLAZE 1K	5%	1/10W	R249	1-216-025-00	METAL GLAZE 100 5% 1/10W
R177	1-216-025-00	METAL GLAZE 100	5%	1/10W	R250	1-216-073-00	METAL GLAZE 10K 5% 1/10W
R179	1-216-045-00	METAL GLAZE 680	5%	1/10W	R251	1-216-041-00	METAL GLAZE 470 5% 1/10W
R180	1-216-073-00	METAL GLAZE 10K	5%	1/10W	R252	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W
R181	1-216-025-00	METAL GLAZE 100	5%	1/10W	R253	1-216-025-00	METAL GLAZE 100 5% 1/10W
R182	1-216-089-00	METAL GLAZE 47K	5%	1/10W	R254	1-216-295-00	CONDUCTOR, CHIP
R183	1-216-091-00	METAL GLAZE 56K	5%	1/10W			

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R255	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R340	1-216-039-00	METAL GLAZE 390	5% 1/10W
R256	1-216-025-00	METAL GLAZE 100	5% 1/10W	R341	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R257	1-216-085-00	METAL GLAZE 33K	5% 1/10W	R342	1-216-039-00	METAL GLAZE 390	5% 1/10W
				R343	1-216-043-91	METAL GLAZE 560	5% 1/10W
R258	1-216-025-00	METAL GLAZE 100	5% 1/10W	R344	1-216-045-00	METAL GLAZE 680	5% 1/10W
R259	1-216-033-00	METAL GLAZE 220	5% 1/10W				
R260	1-216-033-00	METAL GLAZE 220	5% 1/10W	R345	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R261	1-216-025-00	METAL GLAZE 100	5% 1/10W	R346	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R262	1-216-025-00	METAL GLAZE 100	5% 1/10W	R347	1-208-845-11	METAL GLAZE 1M	5% 1/10W
				R348	1-218-754-11	METAL CHIP 120K	0.50% 1/10W
R263	1-216-033-00	METAL GLAZE 220	5% 1/10W	R349	1-216-097-00	METAL GLAZE 100K	5% 1/10W
R264	1-216-033-00	METAL GLAZE 220	5% 1/10W				
R265	1-216-025-00	METAL GLAZE 100	5% 1/10W	R350	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R266	1-216-033-00	METAL GLAZE 220	5% 1/10W	R351	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R267	1-216-053-00	METAL GLAZE 1.5K	5% 1/10W	R352	1-216-073-00	METAL GLAZE 10K	5% 1/10W
				R353	1-216-033-00	METAL GLAZE 220	5% 1/10W
R268	1-216-043-91	METAL GLAZE 560	5% 1/10W	R354	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R274	1-216-049-00	METAL GLAZE 1K	5% 1/10W				
R275	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R355	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R277	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R356	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R278	1-216-037-00	METAL GLAZE 330	5% 1/10W	R358	1-216-049-00	METAL GLAZE 1K	5% 1/10W
				R359	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R279	1-216-295-00	CONDUCTOR, CHIP		R360	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R281	1-216-025-00	METAL GLAZE 100	5% 1/10W				
R282	1-216-025-00	METAL GLAZE 100	5% 1/10W	R361	1-216-041-00	METAL GLAZE 470	5% 1/10W
R283	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R362	1-216-041-00	METAL GLAZE 470	5% 1/10W
R284	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R363	1-216-049-00	METAL GLAZE 1K	5% 1/10W
				R364	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R285	1-216-295-00	CONDUCTOR, CHIP		R365	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R287	1-216-085-00	METAL GLAZE 33K	5% 1/10W				
R290	1-216-041-00	METAL GLAZE 470	5% 1/10W	R366	1-216-689-11	METAL GLAZE 39K	5% 1/10W
R291	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R367	1-216-025-00	METAL GLAZE 100	5% 1/10W
R292	1-216-691-11	METAL CHIP 47K	0.50% 1/10W	R368	1-216-073-00	METAL GLAZE 10K	5% 1/10W
				R369	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R293	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R370	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R294	1-216-033-00	METAL GLAZE 220	5% 1/10W				
R295	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R371	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R297	1-216-037-00	METAL GLAZE 330	5% 1/10W	R372	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R298	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R373	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
				R374	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R299	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R375	1-216-097-00	METAL GLAZE 100K	5% 1/10W
R300	1-216-085-00	METAL GLAZE 33K	5% 1/10W				
R302	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R376	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R305	1-216-035-00	METAL GLAZE 270	5% 1/10W	R377	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R306	1-216-085-00	METAL GLAZE 33K	5% 1/10W	R378	1-216-049-00	METAL GLAZE 1K	5% 1/10W
				R379	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R307	1-216-033-00	METAL GLAZE 220	5% 1/10W	R380	1-216-041-00	METAL GLAZE 470	5% 1/10W
R308	1-216-073-00	METAL GLAZE 10K	5% 1/10W				
R311	1-216-033-00	METAL GLAZE 220	5% 1/10W	R381	1-216-041-00	METAL GLAZE 470	5% 1/10W
R312	1-216-037-00	METAL GLAZE 330	5% 1/10W	R382	1-216-041-00	METAL GLAZE 470	5% 1/10W
R313	1-216-025-00	METAL GLAZE 100	5% 1/10W	R383	1-216-041-00	METAL GLAZE 470	5% 1/10W
				R384	1-216-041-00	METAL GLAZE 470	5% 1/10W
R314	1-216-025-00	METAL GLAZE 100	5% 1/10W	R385	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W
R315	1-216-025-00	METAL GLAZE 100	5% 1/10W				
R316	1-216-025-00	METAL GLAZE 100	5% 1/10W	R386	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R317	1-216-025-00	METAL GLAZE 100	5% 1/10W	R387	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R318	1-216-025-00	METAL GLAZE 100	5% 1/10W	R388	1-216-049-00	METAL GLAZE 1K	5% 1/10W
				R389	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R319	1-216-025-00	METAL GLAZE 100	5% 1/10W	R390	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R320	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W				
R321	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R391	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R322	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R392	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R323	1-216-025-00	METAL GLAZE 100	5% 1/10W	R393	1-216-049-00	METAL GLAZE 1K	5% 1/10W
				R394	1-216-025-00	METAL GLAZE 100	5% 1/10W
R324	1-216-025-00	METAL GLAZE 100	5% 1/10W	R395	1-216-047-91	METAL GLAZE 820	5% 1/10W
R325	1-216-049-00	METAL GLAZE 1K	5% 1/10W				
R327	1-216-685-11	METAL CHIP 27K	0.50% 1/10W	R396	1-216-047-91	METAL GLAZE 820	5% 1/10W
R328	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R397	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R329	1-216-085-00	METAL GLAZE 33K	5% 1/10W	R398	1-216-049-00	METAL GLAZE 1K	5% 1/10W
				R399	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R330	1-218-756-11	METAL CHIP 150K	0.50% 1/10W	R400	1-216-025-00	METAL GLAZE 100	5% 1/10W
R331	1-216-031-00	METAL GLAZE 180	5% 1/10W				
R332	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R401	1-216-025-00	METAL GLAZE 100	5% 1/10W
R333	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W	R402	1-216-025-00	METAL GLAZE 100	5% 1/10W
R334	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R403	1-216-049-00	METAL GLAZE 1K	5% 1/10W
				R404	1-216-107-00	METAL GLAZE 270K	5% 1/10W
R335	1-216-039-00	METAL GLAZE 390	5% 1/10W	R406	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R336	1-216-033-00	METAL GLAZE 220	5% 1/10W				
R337	1-216-025-00	METAL GLAZE 100	5% 1/10W	R407	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R338	1-216-025-00	METAL GLAZE 100	5% 1/10W	R408	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R339	1-216-039-00	METAL GLAZE 390	5% 1/10W	R409	1-216-049-00	METAL GLAZE 1K	5% 1/10W
				R410	1-216-047-91	METAL GLAZE 820	5% 1/10W

B

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R411	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R479	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R412	1-216-295-00	CONDUCTOR, CHIP		R480	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R413	1-216-025-00	METAL GLAZE 100	5% 1/10W	R481	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R414	1-216-025-00	METAL GLAZE 100	5% 1/10W	R482	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R415	1-216-047-91	METAL GLAZE 820	5% 1/10W	R483	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R416	1-216-043-91	METAL GLAZE 560	5% 1/10W	R484	1-216-045-00	METAL GLAZE 680	5% 1/10W
R417	1-216-045-00	METAL GLAZE 680	5% 1/10W	R485	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R418	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R486	1-216-033-00	METAL GLAZE 220	5% 1/10W
R419	1-216-001-00	METAL GLAZE 10	5% 1/10W	R487	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R420	1-216-025-00	METAL GLAZE 100	5% 1/10W	R488	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R421	1-216-295-00	CONDUCTOR, CHIP		R489	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R422	1-216-041-00	METAL GLAZE 470	5% 1/10W	R490	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W
R423	1-216-041-00	METAL GLAZE 470	5% 1/10W	R492	1-216-295-00	CONDUCTOR, CHIP	
R424	1-216-037-00	METAL GLAZE 330	5% 1/10W	R493	1-216-033-00	METAL GLAZE 220	5% 1/10W
R425	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R494	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W
R426	1-216-037-00	METAL GLAZE 330	5% 1/10W	R495	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R427	1-216-025-00	METAL GLAZE 100	5% 1/10W	R496	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R428	1-216-097-00	METAL GLAZE 100K	5% 1/10W	R497	1-216-079-00	METAL GLAZE 18K	5% 1/10W
R429	1-216-041-00	METAL GLAZE 470	5% 1/10W	R498	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R430	1-216-045-00	METAL GLAZE 680	5% 1/10W	R499	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R431	1-216-041-00	METAL GLAZE 470	5% 1/10W	R500	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R432	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R501	1-216-091-00	METAL GLAZE 56K	5% 1/10W
R433	1-249-399-11	CARBON 33	5% 1/4W F	R502	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R434	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R503	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R435	1-216-063-91	METAL GLAZE 3.9K	5% 1/10W	R504	1-216-079-00	METAL GLAZE 18K	5% 1/10W
R436	1-216-037-00	METAL GLAZE 330	5% 1/10W	R505	1-216-091-00	METAL GLAZE 56K	5% 1/10W
R437	1-216-039-00	METAL GLAZE 390	5% 1/10W	R506	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R438	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R507	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R439	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R508	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R440	1-216-031-00	METAL GLAZE 180	5% 1/10W	R509	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W
R441	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R510	1-216-085-00	METAL GLAZE 33K	5% 1/10W
R442	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R511	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R443	1-216-033-00	METAL GLAZE 220	5% 1/10W	R512	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R444	1-216-033-00	METAL GLAZE 220	5% 1/10W	R513	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R445	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W	R514	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R446	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R515	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R447	1-249-389-11	CARBON 4.7	5% 1/4W F	R516	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R448	1-216-013-00	METAL GLAZE 33	5% 1/10W	R517	1-216-295-00	CONDUCTOR, CHIP	
R449	1-216-071-00	METAL GLAZE 8.2K	5% 1/10W	R519	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R450	1-216-039-00	METAL GLAZE 390	5% 1/10W	R520	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R451	1-216-041-00	METAL GLAZE 470	5% 1/10W	R521	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R452	1-216-025-00	METAL GLAZE 100	5% 1/10W	R522	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R453	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R527	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R454	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R528	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R455	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R530	1-216-058-00	METAL GLAZE 2.4K	5% 1/10W
R456	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W	R531	1-216-058-00	METAL GLAZE 2.4K	5% 1/10W
R457	1-216-025-00	METAL GLAZE 100	5% 1/10W	R532	1-216-097-91	METAL GLAZE 100K	5% 1/10W
R458	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R533	1-216-045-00	METAL GLAZE 680	5% 1/10W
R459	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R534	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R460	1-216-071-00	METAL GLAZE 8.2K	5% 1/10W	R535	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R461	1-216-041-00	METAL GLAZE 470	5% 1/10W	R536	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R462	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R537	1-216-121-91	METAL GLAZE 1M	5% 1/10W
R463	1-216-097-00	METAL GLAZE 100K	5% 1/10W	R538	1-216-079-00	METAL GLAZE 18K	5% 1/10W
R464	1-216-097-00	METAL GLAZE 100K	5% 1/10W	R539	1-216-079-00	METAL GLAZE 18K	5% 1/10W
R465	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R540	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R466	1-216-041-00	METAL GLAZE 470	5% 1/10W	R541	1-216-097-00	METAL GLAZE 100K	5% 1/10W
R467	1-216-047-91	METAL GLAZE 820	5% 1/10W	R542	1-208-845-11	METAL GLAZE 1M	5% 1/10W
R468	1-216-047-91	METAL GLAZE 820	5% 1/10W	R543	1-216-045-00	METAL GLAZE 680	5% 1/10W
R469	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R545	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R470	1-249-389-11	CARBON 4.7	5% 1/4W F	R546	1-216-033-00	METAL GLAZE 220	5% 1/10W
R471	1-216-113-00	METAL GLAZE 470K	5% 1/10W	R547	1-216-001-00	METAL GLAZE 10	5% 1/10W
R472	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R548	1-216-077-00	METAL GLAZE 15K	5% 1/10W
R473	1-216-033-00	METAL GLAZE 220	5% 1/10W	R551	1-216-077-00	METAL GLAZE 15K	5% 1/10W
R474	1-216-045-00	METAL GLAZE 680	5% 1/10W	R553	1-216-077-00	METAL GLAZE 15K	5% 1/10W
R475	1-216-041-00	METAL GLAZE 470	5% 1/10W	R555	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R476	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R556	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R477	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R558	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R478	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R559	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R561	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R4125	1-216-295-00	CONDUCTOR, CHIP	
R562	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R4127	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R563	1-249-402-11	CARBON 56	5% 1/4W F	R4128	1-216-045-00	METAL GLAZE 680	5% 1/10W
R565	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R4129	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R566	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W	R4130	1-216-107-00	METAL GLAZE 270K	5% 1/10W
R567	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R4131	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R571	1-216-081-00	METAL GLAZE 22K	5% 1/10W	<VARIABLE RESISTOR>			
R574	1-216-049-00	METAL GLAZE 1K	5% 1/10W	RV1	1-241-769-11	RES, ADJ, CARBON 470K	
R575	1-216-049-00	METAL GLAZE 1K	5% 1/10W	RV2	1-241-769-11	RES, ADJ, CARBON 470K	
R576	1-249-397-11	CARBON 22	5% 1/4W F	RV601	1-241-763-11	RES, ADJ, CERMET 4.7K	
R577	1-249-397-11	CARBON 22	5% 1/4W F	<CRYSTAL>			
R580	1-216-295-00	CONDUCTOR, CHIP		X1	1-567-505-11	OSCILLATOR, CRYSTAL	
R581	1-216-295-00	CONDUCTOR, CHIP		X2	1-567-504-11	OSCILLATOR, CRYSTAL	
R584	1-216-295-00	CONDUCTOR, CHIP		X3	1-567-505-11	OSCILLATOR, CRYSTAL	
R585	1-216-295-00	CONDUCTOR, CHIP		X4	1-567-504-11	OSCILLATOR, CRYSTAL	
R588	1-216-071-00	METAL GLAZE 8.2K	5% 1/10W	X5	1-760-095-21	VIBRATOR, CRYSTAL	
R589	1-216-041-00	METAL GLAZE 470	5% 1/10W	X201	1-760-509-21	VIBRATOR, CRYSTAL	
R590	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	X202	1-760-180-11	VIBRATOR, CRYSTAL	
R591	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	X203	1-579-977-21	VIBRATOR, CRYSTAL	
R601	1-216-043-91	METAL GLAZE 560	5% 1/10W	*****			
R602	1-216-075-00	METAL GLAZE 12K	5% 1/10W	* A-1632-585-A A BOARD, COMPLETE			
R603	1-216-091-00	METAL GLAZE 56K	5% 1/10W	*****			
R604	1-216-025-00	METAL GLAZE 100	5% 1/10W	4-382-854-11 SCREW (M3X10), P, SW (+)			
R605	1-216-025-00	METAL GLAZE 100	5% 1/10W	<CAPACITOR>			
R606	1-216-049-00	METAL GLAZE 1K	5% 1/10W	C1001	1-162-114-00	CERAMIC 0.0047MF	2KV
R607	1-216-025-00	METAL GLAZE 100	5% 1/10W	C1002	1-107-637-11	ELECT 22MF	20% 160V
R608	1-216-109-00	METAL GLAZE 330K	5% 1/10W	C1003	1-162-116-00	CERAMIC 680PF	10% 2KV
R609	1-216-049-00	METAL GLAZE 1K	5% 1/10W	C1004	1-107-368-11	FILM 0.047MF	10% 200V
R610	1-216-045-00	METAL GLAZE 680	5% 1/10W	C1005	1-136-076-00	FILM 0.0085MF	3% 2KV
R611	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	C1006	1-137-391-11	FILM 0.0047MF	5% 100V
R612	1-216-085-00	METAL GLAZE 33K	5% 1/10W	C1007	1-126-959-11	ELECT 0.47MF	20% 50V
R613	1-216-295-00	CONDUCTOR, CHIP		C1008	1-102-973-00	CERAMIC 100PF	5% 50V
R614	1-216-295-00	CONDUCTOR, CHIP		C1009	1-136-598-11	FILM 3MF	5% 200V
R615	1-216-081-00	METAL GLAZE 22K	5% 1/10W	C1010	1-102-030-00	CERAMIC 330PF	10% 500V
R616	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	C1011	1-137-372-11	FILM 0.022MF	5% 50V
R617	1-216-049-00	METAL GLAZE 1K	5% 1/10W	C1012	1-136-105-00	FILM 0.33MF	5% 200V
R618	1-216-675-11	METAL CHIP 10K	0.50% 1/10W	C1013	1-126-960-11	ELECT 1MF	20% 50V
R620	1-216-674-11	METAL CHIP 9.1K	0.50% 1/10W	C1014	1-107-368-11	FILM 0.047MF	10% 200V
R622	1-216-075-00	METAL GLAZE 12K	5% 1/10W	C1015	1-136-756-11	FILM 0.24MF	5% 200V
R623	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	C1016	1-107-638-11	ELECT 33MF	20% 160V
R624	1-216-081-00	METAL GLAZE 22K	5% 1/10W	C1017	1-126-967-11	ELECT 47MF	20% 16V
R625	1-216-651-11	METAL CHIP 1K	0.50% 1/10W	C1018	1-126-967-11	ELECT 47MF	20% 16V
R627	1-216-071-00	METAL GLAZE 8.2K	5% 1/10W	C1019	1-123-024-21	ELECT 33MF	160V
R628	1-216-677-11	METAL CHIP 12K	0.50% 1/10W	C1020	1-136-165-00	FILM 0.1MF	5% 50V
R629	1-216-073-00	METAL GLAZE 10K	5% 1/10W	C1021	1-137-370-11	FILM 0.01MF	5% 50V
R631	1-216-049-00	METAL GLAZE 1K	5% 1/10W	C1023	1-126-967-11	ELECT 47MF	20% 16V
R632	1-216-687-11	METAL CHIP 33K	0.50% 1/10W	C1025	1-126-967-11	ELECT 47MF	20% 16V
R633	1-216-651-11	METAL CHIP 1K	0.50% 1/10W	C1026	1-101-002-00	CERAMIC 0.0022MF	50V
R634	1-216-675-11	METAL CHIP 10K	0.50% 1/10W	C1027	1-136-105-00	FILM 0.33MF	5% 200V
R635	1-216-025-00	METAL GLAZE 100	5% 1/10W	C1033	1-126-967-11	ELECT 47MF	20% 16V
R636	1-216-295-00	CONDUCTOR, CHIP		C1034	1-102-121-00	CERAMIC 0.0022MF	10% 50V
R640	1-216-025-00	METAL GLAZE 100	5% 1/10W	C1035	1-126-967-11	ELECT 47MF	20% 16V
R641	1-216-675-11	METAL CHIP 10K	0.50% 1/10W	C1038	1-126-967-11	ELECT 47MF	20% 16V
R4102	1-216-073-00	METAL GLAZE 10K	5% 1/10W	C1039	1-102-121-00	CERAMIC 0.0022MF	10% 50V
R4103	1-216-049-00	METAL GLAZE 1K	5% 1/10W	C1040	1-126-967-11	ELECT 47MF	20% 16V
R4104	1-216-025-00	METAL GLAZE 100	5% 1/10W	C1042	1-104-664-11	ELECT 47MF	20% 25V
R4105	1-216-025-00	METAL GLAZE 100	5% 1/10W	C1043	1-101-002-00	CERAMIC 0.0022MF	50V
R4106	1-216-025-00	METAL GLAZE 100	5% 1/10W	C1044	1-101-002-00	CERAMIC 0.0022MF	50V
R4107	1-216-025-00	METAL GLAZE 100	5% 1/10W	C1045	1-126-967-11	ELECT 47MF	20% 16V
R4108	1-216-025-00	METAL GLAZE 100	5% 1/10W				
R4109	1-216-025-00	METAL GLAZE 100	5% 1/10W				
R4110	1-216-033-00	METAL GLAZE 220	5% 1/10W				
R4111	1-216-081-00	METAL GLAZE 22K	5% 1/10W				
R4112	1-216-295-00	CONDUCTOR, CHIP					
R4113	1-216-295-00	CONDUCTOR, CHIP					
R4118	1-216-025-00	METAL GLAZE 100	5% 1/10W				
R4120	1-216-295-00	CONDUCTOR, CHIP					
R4121	1-216-295-00	CONDUCTOR, CHIP					
R4124	1-216-295-00	CONDUCTOR, CHIP					

A

REF. NO.	PART NO.	DESCRIPTION	REMARK
C1047	1-101-002-00	CERAMIC	0.0022MF 50V
C1048	1-126-967-11	ELECT	47MF 20% 16V
C1049	1-104-664-11	ELECT	47MF 20% 25V
C1050	1-101-002-00	CERAMIC	0.0022MF 50V
C1051	1-104-664-11	ELECT	47MF 20% 25V
C1052	1-126-967-11	ELECT	47MF 20% 16V
C1053	1-101-004-00	CERAMIC	0.01MF 50V
C1054	1-126-967-11	ELECT	47MF 20% 50V
C1055	1-126-964-11	ELECT	10MF 20% 50V
C1056	1-128-551-11	ELECT	22MF 20% 25V
C1057	1-102-114-00	CERAMIC	470PF 10% 50V
C1058	1-126-967-11	ELECT	47MF 20% 50V
C1059	1-126-967-11	ELECT	47MF 20% 50V
C1060	1-102-114-00	CERAMIC	470PF 10% 50V
C1061	1-126-967-11	ELECT	47MF 20% 16V
C1064	1-126-967-11	ELECT	47MF 20% 16V
C1065	1-102-114-00	CERAMIC	470PF 10% 50V
C1066	1-102-114-00	CERAMIC	470PF 10% 50V
C1067	1-126-967-11	ELECT	47MF 20% 16V
C1068	1-102-114-00	CERAMIC	470PF 10% 50V
C1069	1-126-967-11	ELECT	47MF 20% 16V
C1070	1-126-965-11	ELECT	22MF 20% 50V
C1071	1-102-114-00	CERAMIC	470PF 10% 50V
C1072	1-126-967-11	ELECT	47MF 20% 16V
C1073	1-102-114-00	CERAMIC	470PF 10% 50V
C1074	1-126-967-11	ELECT	47MF 20% 16V
C1075	1-126-967-11	ELECT	47MF 20% 16V
C1076	1-102-114-00	CERAMIC	470PF 10% 50V
C1077	1-126-964-11	ELECT	10MF 20% 50V
C1078	1-101-004-00	CERAMIC	0.01MF 50V
C1079	1-163-263-11	CERAMIC CHIP	330PF 5% 50V
C1080	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V
C1081	1-126-933-11	ELECT	100MF 20% 16V
C1082	1-126-933-11	ELECT	100MF 20% 16V
C1090	1-162-116-00	CERAMIC	680PF 10% 2KV
C1091	1-137-380-11	FILM	0.47MF 5% 50V
C3201	1-126-964-11	ELECT	10MF 20% 50V
C3202	1-126-964-11	ELECT	10MF 20% 50V
C3204	1-126-967-11	ELECT	47MF 20% 16V
C3205	1-126-301-11	ELECT	1MF 20% 50V
C3206	1-126-967-11	ELECT	47MF 20% 16V
C3207	1-128-550-11	ELECT	2200MF 20% 50V
C3208	1-128-550-11	ELECT	2200MF 20% 50V
C3209	1-136-165-00	FILM	0.1MF 5% 50V
C3210	1-136-165-00	FILM	0.1MF 5% 50V
C3211	1-136-165-00	FILM	0.1MF 5% 50V
C3212	1-136-165-00	FILM	0.1MF 5% 50V
C3213	1-107-715-11	ELECT	22MF 20% 50V
C3214	1-126-969-11	ELECT	220MF 20% 50V
C3215	1-126-965-11	ELECT	22MF 20% 50V
C3216	1-126-961-11	ELECT	2.2MF 20% 50V
<CONNECTOR>			
CN1001	*1-573-963-11	PIN, CONNECTOR (PC BOARD) 3P	
CN1002	*1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P	
CN1003	*1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P	
CN1004	*1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P	
CN1005	1-695-915-11	TAB (CONTACT)	
CN1006	*1-564-509-11	PLUG, CONNECTOR 6P	
CN1007	1-695-915-11	TAB (CONTACT)	
CN1008	*1-508-765-00	PIN, CONNECTOR (5mm PITCH) 3P	
CN1009	*1-508-768-00	PIN, CONNECTOR (5mm PITCH) 6P	
CN1010	*1-564-509-11	PLUG, CONNECTOR 6P	
CN1011	*1-564-509-11	PLUG, CONNECTOR 6P	
CN1012	*1-564-506-11	PLUG, CONNECTOR 3P	
CN1013	*1-564-515-11	PLUG, CONNECTOR 12P	
CN1016	1-695-298-11	CONNECTOR, BOARD TO BOARD 40P	
CN3201	*1-564-510-11	PLUG, CONNECTOR 7P	

REF. NO.	PART NO.	DESCRIPTION	REMARK
CN3202	*1-508-766-00	PIN, CONNECTOR (5mm PITCH) 4P	
CN3203	*1-564-507-11	PLUG, CONNECTOR 4P	
<DIODE>			
D1001	8-719-018-82	DIODE RGP02-20EL-6394	
D1002	8-719-300-80	DIODE RU-1C	
D1004	8-719-911-19	DIODE ISS119-25	
D1005	8-719-911-19	DIODE ISS119-25	
D1006	8-719-911-19	DIODE ISS119-25	
D1007	8-719-911-19	DIODE ISS119-25	
D1008	8-719-911-19	DIODE ISS119-25	
D1009	8-719-911-19	DIODE ISS119-25	
D1012	8-719-150-92	DIODE RD33EB3T	
D1013	8-719-911-19	DIODE ISS119-25	
D1014	8-719-911-19	DIODE ISS119-25	
D1015	8-719-911-19	DIODE ISS119-25	
D1016	8-719-911-19	DIODE ISS119-25	
D1017	8-719-510-48	DIODE DIN20R	
D1018	8-719-510-48	DIODE DIN20R	
D3201	8-719-914-44	DIODE DAP202K	
D3202	8-719-914-43	DIODE DAN202K	
D3203	8-719-911-19	DIODE ISS119-25	
D3204	8-719-914-43	DIODE DAN202K	
D3206	8-719-914-43	DIODE DAN202K	
D3207	8-719-914-43	DIODE DAN202K	
D3209	8-719-914-43	DIODE DAN202K	
D3210	8-719-911-19	DIODE ISS119-25	
D3211	8-719-988-72	DIODE SC802-06	
D3212	8-719-911-19	DIODE ISS119-25	
<IC>			
IC1001	8-759-457-44	IC KA78R05TU	
IC1002	8-759-457-44	IC KA78R05TU	
IC1003	8-759-189-48	IC PQ12RE11	
IC1004	8-759-095-63	IC PQ09RF2	
IC1005	8-759-701-88	IC NJM7912FA	
IC1006	8-759-991-41	IC LM78L05ACZ	
IC3201	8-759-190-89	IC TDA7265	
<IF BLOCK>			
IF1002	1-466-677-11	IF BLOCK (IFF-380)	
IF1003	1-466-138-11	IF BLOCK (IFD-380A)	
<COIL>			
L1001	1-411-189-11	COIL, CHOKE 15mH	
L1002	1-459-769-13	COIL, HORIZONTAL LINEARITY	
L1003	1-408-417-00	INDUCTOR 47UH	
L1005	1-408-421-00	INDUCTOR 100UH	
L1006	1-412-533-21	INDUCTOR 47UH	
L1007	1-408-417-00	INDUCTOR 47UH	
L1008	1-408-417-00	INDUCTOR 47UH	
L1009	1-408-417-00	INDUCTOR 47UH	
L1010	1-412-533-21	INDUCTOR 47UH	
L1012	1-408-417-00	INDUCTOR 47UH	
L1013	1-408-417-00	INDUCTOR 47UH	
<TRANSISTOR>			
Q1001	8-729-021-48	TRANSISTOR 2SD2348LBSOY	
Q1002	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q1003	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1004	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1005	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1006	8-729-201-32	TRANSISTOR 2SA1013-O	
Q1007	8-729-201-32	TRANSISTOR 2SA1013-O	



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
Q1008	8-729-119-76	TRANSISTOR 2SA1175-HFE		R1049	1-249-429-11	CARBON 10K	5% 1/4W
Q1009	8-729-010-98	TRANSISTOR 2SA1492M-OPY		R1052	1-249-417-11	CARBON 1K	5% 1/4W
Q1010	8-729-304-92	TRANSISTOR 2SB649A-C		R1064	1-216-389-11	METAL OXIDE 1	5% 3W F
Q1011	8-729-029-56	TRANSISTOR DTA144ESA		R1075	1-249-419-11	CARBON 1.5K	5% 1/4W
Q1012	8-729-119-78	TRANSISTOR 2SC2785-HFE		R1084	1-215-901-00	METAL OXIDE 33K	5% 2W F
Q1013	8-729-119-78	TRANSISTOR 2SC2785-HFE		R1086	1-249-427-11	CARBON 6.8K	5% 1/4W
Q1014	8-729-119-78	TRANSISTOR 2SC2785-HFE		R1087	1-249-428-11	CARBON 8.2K	5% 1/4W
Q1015	8-729-119-76	TRANSISTOR 2SA1175-HFE		R1088	1-249-432-11	CARBON 18K	5% 1/4W
Q1016	8-729-119-78	TRANSISTOR 2SC2785-HFE		R1089	1-249-433-11	CARBON 22K	5% 1/4W
Q1017	8-729-119-78	TRANSISTOR 2SC2785-HFE		R1093	1-249-409-11	CARBON 220	5% 1/4W
Q1024	8-729-119-76	TRANSISTOR 2SA1175-HFE		R1094	1-249-409-11	CARBON 220	5% 1/4W
Q1025	8-729-216-22	TRANSISTOR 2SA1162-G		R1095	1-249-409-11	CARBON 220	5% 1/4W
Q1026	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R1096	1-249-409-11	CARBON 220	5% 1/4W
Q3201	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R1097	1-249-433-11	CARBON 22K	5% 1/4W
Q3204	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R1098	1-247-881-00	CARBON 120K	5% 1/4W
Q3205	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R1099	1-249-441-11	CARBON 100K	5% 1/4W
Q3206	8-729-216-22	TRANSISTOR 2SA1162-G		R1100	1-249-429-11	CARBON 10K	5% 1/4W
Q3207	8-729-216-22	TRANSISTOR 2SA1162-G		R1101	1-249-437-11	CARBON 47K	5% 1/4W
Q3208	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R1102	1-249-422-11	CARBON 2.7K	5% 1/4W
Q3209	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R1103	1-249-429-11	CARBON 10K	5% 1/4W
Q3210	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R1104	1-249-437-11	CARBON 47K	5% 1/4W
<RESISTOR>				R1105	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R1001	1-215-865-11	METAL OXIDE 220	5% 1W F	R1106	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R1002	1-247-735-11	SOLID 47	20% 1/2W	R1107	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R1003	1-216-478-11	METAL OXIDE 390	5% 3W F	R1108	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R1004	1-215-925-11	METAL OXIDE 22K	5% 3W F	R1109	1-216-077-00	METAL GLAZE 15K	5% 1/10W
R1005	1-215-925-11	METAL OXIDE 22K	5% 3W F	R3201	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R1006	1-216-373-11	METAL OXIDE 2.2	5% 2W F	R3202	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R1007	1-249-437-11	CARBON 47K	5% 1/4W	R3203	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R1009	1-249-427-11	CARBON 6.8K	5% 1/4W F	R3204	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R1010	1-249-417-11	CARBON 1K	5% 1/4W	R3205	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R1011	1-247-843-11	CARBON 3.3K	5% 1/4W	R3206	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R1012	1-249-417-11	CARBON 1K	5% 1/4W	R3207	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R1015	1-215-429-00	METAL 2.2K	1% 1/4W	R3208	1-216-041-00	METAL GLAZE 470	5% 1/10W
R1016	1-215-433-00	METAL 3.3K	1% 1/4W	R3209	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R1017	1-249-425-11	CARBON 4.7K	5% 1/4W	R3210	1-216-039-00	METAL GLAZE 390	5% 1/10W
R1018	1-247-895-00	CARBON 470K	5% 1/4W	R3211	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R1019	1-249-421-11	CARBON 2.2K	5% 1/4W F	R3212	1-216-099-00	METAL GLAZE 120K	5% 1/10W
R1020	1-249-423-11	CARBON 3.3K	5% 1/4W F	R3213	1-216-039-00	METAL GLAZE 390	5% 1/10W
R1021	1-249-425-11	CARBON 4.7K	5% 1/4W F	R3214	1-216-079-00	METAL GLAZE 18K	5% 1/10W
R1022	1-215-443-00	METAL 8.2K	1% 1/4W	R3215	1-216-079-00	METAL GLAZE 18K	5% 1/10W
R1023	1-249-421-11	CARBON 2.2K	5% 1/4W	R3216	1-216-025-00	METAL GLAZE 100	5% 1/10W
R1024	1-249-417-11	CARBON 1K	5% 1/4W	R3217	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R1025	1-215-425-00	METAL 1.5K	1% 1/4W	R3218	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R1026	1-215-925-11	METAL OXIDE 22K	5% 3W F	R3219	1-216-357-00	METAL OXIDE 4.7	5% 1W F
R1027	1-215-437-00	METAL 4.7K	1% 1/4W	R3220	1-216-357-00	METAL OXIDE 4.7	5% 1W F
R1028	1-249-417-11	CARBON 1K	5% 1/4W	R3221	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R1029	1-249-429-11	CARBON 10K	5% 1/4W	R3222	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R1030	1-249-417-11	CARBON 1K	5% 1/4W F	R3223	1-216-079-00	METAL GLAZE 18K	5% 1/10W
R1031	1-215-877-11	METAL OXIDE 22K	5% 1W F	R3224	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R1032	1-249-430-11	CARBON 12K	5% 1/4W F	R3225	1-216-025-00	METAL GLAZE 100	5% 1/10W
R1033	1-249-437-11	CARBON 47K	5% 1/4W	R3226	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R1034	1-247-807-31	CARBON 100	5% 1/4W	R3227	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R1035	1-249-418-11	CARBON 1.2K	5% 1/4W	R3228	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R1036	1-249-425-11	CARBON 4.7K	5% 1/4W	R3229	1-216-033-00	METAL GLAZE 220	5% 1/10W
R1037	1-249-429-11	CARBON 10K	5% 1/4W	R3230	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R1038	1-249-429-11	CARBON 10K	5% 1/4W	R3231	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R1039	1-247-843-11	CARBON 3.3K	5% 1/4W	R3232	1-216-063-91	METAL GLAZE 3.9K	5% 1/10W
R1040	1-249-437-11	CARBON 47K	5% 1/4W	R3233	1-216-099-00	METAL GLAZE 120K	5% 1/10W
R1041	1-249-417-11	CARBON 1K	5% 1/4W	R3234	1-216-063-91	METAL GLAZE 3.9K	5% 1/10W
R1042	1-249-429-11	CARBON 10K	5% 1/4W	R3235	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R1043	1-249-425-11	CARBON 4.7K	5% 1/4W	R3236	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R1044	1-247-807-31	CARBON 100	5% 1/4W	R3237	1-249-421-11	CARBON 2.2K	5% 1/4W
R1045	1-249-417-11	CARBON 1K	5% 1/4W	<RELAY>			
R1046	1-247-807-31	CARBON 100	5% 1/4W	RY3201	1-515-833-11	RELAY	
R1047	1-249-429-11	CARBON 10K	5% 1/4W				
R1048	1-247-807-31	CARBON 100	5% 1/4W				



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REF. NO. PART NO. DESCRIPTION REMARK

<TRANSFORMER>

T1001 1-437-078-00 TRANSFORMER, HORIZONTAL DRIVE

<TEST PIN>

TP1001 1-535-570-11 PIN, TERMINAL
TP1002 1-535-570-11 PIN, TERMINAL

<TUNER>

TU1002 8-598-270-00 TUNER, ET BTP-RG421
TU1003 8-598-270-00 TUNER, ET BTP-RG421

* A-1637-007-A G BOARD, COMPLETE

4-382-854-11 SCREW (M3X10), P, SW (+)
7-322-065-19 RUBBER, SILICON RTV (KE490W)

<CAPACITOR>

C6001 Δ 1-113-890-51 CERAMIC 0.0022MF 20% 250V
C6002 1-104-708-11 FILM 0.47MF 20% 250V
C6003 1-126-944-11 ELECT 3300MF 20% 25V
C6004 1-104-665-11 ELECT 100MF 20% 25V
C6006 1-104-706-11 FILM 0.22MF 20% 250V

C6007 Δ 1-113-890-51 CERAMIC 0.0022MF 20% 250V
C6008 1-104-706-11 FILM 0.22MF 20% 250V
C6009 1-102-114-00 CERAMIC 470PF 10% 50V
C6010 1-102-112-00 CERAMIC 330PF 10% 50V
C6011 1-107-678-91 ELECT 4.7MF 20% 450V

C6012 1-102-112-00 CERAMIC 330PF 10% 50V
C6013 1-137-479-11 FILM 1MF 10% 400V
C6014 1-126-968-11 ELECT 100MF 20% 50V
C6016 1-126-964-11 ELECT 10MF 20% 50V
C6017 1-164-346-11 CERAMIC CHIP 1MF 16V

C6018 1-117-195-11 ELECT 820MF 20% 400V
C6019 1-104-664-11 ELECT 47MF 20% 25V
C6020 1-104-665-11 ELECT 100MF 20% 25V
C6021 1-126-961-11 ELECT 2.2MF 20% 50V
C6022 1-137-370-11 FILM 0.01MF 5% 50V

C6023 1-102-112-00 CERAMIC 330PF 10% 50V
C6024 1-126-960-11 ELECT 1MF 20% 50V
C6025 1-136-165-00 FILM 0.1MF 5% 50V
C6026 1-104-665-11 ELECT 100MF 20% 25V
C6027 1-104-665-11 ELECT 100MF 20% 25V

C6028 1-164-625-11 CERAMIC 680PF 10% 500V
C6029 1-164-625-11 CERAMIC 680PF 10% 500V
C6030 1-115-405-11 FILM 0.039MF 3% 1KV
C6031 1-126-964-11 ELECT 10MF 20% 50V
C6032 1-126-964-11 ELECT 10MF 20% 50V

C6033 1-130-471-00 FILM 0.001MF 2% 50V
C6034 1-101-810-00 CERAMIC 100PF 5% 500V
C6035 1-101-810-00 CERAMIC 100PF 5% 500V
C6036 1-126-768-11 ELECT 2200MF 20% 16V
C6037 1-126-943-11 ELECT 2200MF 20% 25V

C6038 1-126-946-11 ELECT 6800MF 20% 25V
C6039 1-126-972-11 ELECT 1000MF 20% 50V
C6040 1-126-972-11 ELECT 1000MF 20% 50V
C6041 1-126-960-11 ELECT 1MF 20% 50V
C6042 1-104-665-11 ELECT 100MF 20% 25V

C6043 1-107-639-11 ELECT 47MF 20% 160V
C6044 1-107-641-11 ELECT 220MF 20% 160V
C6045 1-104-665-11 ELECT 100MF 20% 25V
C6046 1-104-665-11 ELECT 100MF 20% 25V
C6047 1-102-112-00 CERAMIC 330PF 10% 50V

REF. NO. PART NO. DESCRIPTION REMARK

C6048 1-126-960-11 ELECT 1MF 20% 50V
C6049 1-136-165-00 FILM 0.1MF 5% 50V
C6050 1-109-954-11 ELECT 0.47MF 20% 160V
C6051 1-126-935-11 ELECT 470MF 20% 6.3V
C6052 1-164-625-11 CERAMIC 680PF 10% 500V

C6053 1-164-625-11 CERAMIC 680PF 10% 500V
C6054 1-107-639-11 ELECT 47MF 20% 160V
C6055 1-107-641-11 ELECT 220MF 20% 160V
C6056 1-137-370-11 FILM 0.01MF 5% 50V
C6057 1-102-030-00 CERAMIC 330PF 10% 500V

C6058 1-102-114-00 CERAMIC 470PF 10% 50V
C6059 1-102-114-00 CERAMIC 470PF 10% 50V
C6060 1-102-114-00 CERAMIC 470PF 10% 50V
C6061 1-102-114-00 CERAMIC 470PF 10% 50V
C6064 1-162-599-12 CERAMIC 0.0047MF 250V

C6065 1-162-599-12 CERAMIC 0.0047MF 250V

<CONNECTOR>

CN6002 1-695-915-11 TAB (CONTACT)
CN6003 1-695-915-11 TAB (CONTACT)
CN6005 * 1-580-843-11 PIN, CONNECTOR (POWER)
CN6006 * 1-580-689-11 PIN, CONNECTOR (PC BOARD) 4P
CN6007 * 1-691-291-11 PIN, CONNECTOR (PC BOARD) 5P

CN6008 * 1-564-509-11 PLUG, CONNECTOR 6P
CN6009 * 1-564-507-11 PLUG, CONNECTOR 4P
CN6010 * 1-508-768-00 PIN, CONNECTOR (5mm PITCH) 6P
CN6011 * 1-573-986-11 PIN, CONNECTOR (PC BOARD) 5P
CN6012 * 1-508-766-00 PIN, CONNECTOR (5mm PITCH) 4P

CN6013 * 1-508-765-00 PIN, CONNECTOR (5mm PITCH) 3P

<DIODE>

D6001 8-719-979-58 DIODE EGPI0D
D6002 8-719-979-58 DIODE EGPI0D
D6003 8-719-022-99 DIODE D6S8B60L
D6005 8-719-110-36 DIODE RD13ESB2
D6006 8-719-911-19 DIODE ISS119-25

D6007 8-719-911-55 DIODE U05G
D6008 8-719-979-64 DIODE UF4005PKG23
D6009 8-719-059-23 DIODE P6KE200AG23
D6010 8-719-028-72 DIODE RGP02-17EL-6433
D6011 8-719-150-92 DIODE RD33EB3T

D6012 8-719-911-19 DIODE ISS119-25
D6013 8-719-110-12 DIODE RD9.1ESB1
D6014 8-719-911-19 DIODE ISS119-25
D6015 8-719-911-19 DIODE ISS119-25
D6016 8-719-911-19 DIODE ISS119-25

D6017 8-719-510-64 DIODE S2LA20F
D6018 8-719-911-19 DIODE ISS119-25
D6019 8-719-911-19 DIODE ISS119-25
D6020 8-719-911-19 DIODE ISS119-25
D6021 8-719-979-64 DIODE UF4005PKG23

D6022 8-719-110-52 DIODE RD20ESB1
D6023 8-719-979-64 DIODE UF4005PKG23
D6024 8-719-110-52 DIODE RD20ESB1
D6025 8-719-510-64 DIODE S2LA20F
D6026 8-719-110-52 DIODE RD20ESB1

D6027 8-719-110-52 DIODE RD20ESB1
D6032 8-719-911-19 DIODE ISS119-25
D6033 8-719-911-19 DIODE ISS119-25
D6035 8-719-018-83 DIODE D2S4M
D6036 8-719-018-83 DIODE D2S4M

D6037 8-719-031-78 DIODE S2L40F
D6038 8-719-312-47 DIODE RBA-406B
D6039 8-719-510-12 DIODE D10SC4M
D6040 8-719-027-20 DIODE D3S4M-F
D6041 8-719-027-20 DIODE D3S4M-F

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REF. NO.	PART NO.	DESCRIPTION	REMARK
D6042	8-719-979-64	DIODE UF4005PKG23	
D6043	8-719-110-52	DIODE RD20ESB1	
D6044	8-719-979-64	DIODE UF4005PKG23	
D6045	8-719-110-52	DIODE RD20ESB1	
D6046	8-719-110-52	DIODE RD20ESB1	
D6047	8-719-110-52	DIODE RD20ESB1	
D6048	Δ 8-719-947-57	DIODE MTZ1-T-72-13B	
D6049	8-719-031-78	DIODE S2L40F	
D6050	8-719-911-19	DIODE ISS119-25	
D6051	8-719-911-19	DIODE ISS119-25	
D6052	8-719-027-20	DIODE D3S4M-F	
D6053	8-719-027-20	DIODE D3S4M-F	
<FUSE>			
F6001	Δ 1-576-232-11	FUSE (H.B.C.) 5A/250V	
	* 1-533-725-11	HOLDER, FUSE ; F6001	
<FERRITE BEAD>			
FB6008	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
FB6009	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
<IC>			
IC6001	8-759-426-45	IC PWR-TOP210PFI	
IC6002	8-759-103-93	IC uPC393C	
IC6003	8-759-185-47	IC IR2112	
IC6004	8-759-077-25	IC IR3M02A	
IC6005	Δ 8-749-010-65	PHOTO COUPLER PC123FY2	
IC6006	Δ 8-749-010-65	PHOTO COUPLER PC123FY2	
IC6007	8-759-185-47	IC IR2112	
IC6008	Δ 8-749-923-26	IC SE-135N-LF12	
<COIL>			
L6001	1-412-533-21	INDUCTOR 47UH	
L6002	1-412-525-31	INDUCTOR 10UH	
L6003	1-412-525-31	INDUCTOR 10UH	
L6004	1-412-525-31	INDUCTOR 10UH	
L6005	1-412-525-31	INDUCTOR 10UH	
L6006	1-406-659-11	COIL, CHOKE 10UH	
L6007	1-412-533-21	INDUCTOR 47UH	
L6008	1-412-533-21	INDUCTOR 47UH	
L6009	1-412-522-41	INDUCTOR 5.6UH	
L6010	1-412-522-41	INDUCTOR 5.6UH	
L6011	1-412-525-31	INDUCTOR 10UH	
L6012	1-406-971-21	COIL, CHOKE 10UH	
<TRANSISTOR>			
Q6001	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6002	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6003	8-729-216-22	TRANSISTOR 2SA1162-G	
Q6004	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q6005	8-729-216-22	TRANSISTOR 2SA1162-G	
Q6006	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6007	8-729-028-10	TRANSISTOR IRF1744G-LF	
Q6008	8-729-028-10	TRANSISTOR IRF1744G-LF	
Q6009	8-729-140-97	TRANSISTOR 2SB734-34	
Q6010	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q6011	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q6012	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q6013	8-729-820-82	TRANSISTOR 2SA1208-T	
Q6014	8-729-028-10	TRANSISTOR IRF1744G-LF	
Q6015	8-729-028-10	TRANSISTOR IRF1744G-LF	

REF. NO.	PART NO.	DESCRIPTION	REMARK
<RESISTOR>			
R6000	1-202-719-00	SOLID 1M	20% 1/2W
R6001	1-249-417-11	CARBON 1K	5% 1/4W
R6002	Δ 1-218-265-91	METAL 8.2M	5% 1W
R6003	1-216-683-11	METAL CHIP 22K	0.50% 1/10W
R6004	1-215-486-00	METAL 510K	1% 1/4W
R6005	1-215-486-00	METAL 510K	1% 1/4W
R6008	1-216-099-00	METAL GLAZE 120K	5% 1/10W
R6009	1-247-889-00	CARBON 270K	5% 1/4W
R6010	1-247-889-00	CARBON 270K	5% 1/4W
R6011	1-216-675-11	METAL CHIP 10K	0.50% 1/10W
R6012	1-216-657-11	METAL CHIP 1.8K	0.50% 1/10W
R6013	1-202-962-11	WIREWOUND 3.3	5% 10W
R6014	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R6015	1-247-895-00	CARBON 470K	5% 1/4W
R6016	1-216-089-91	METAL GLAZE 47K	5% 1/10W
R6018	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R6019	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R6020	1-216-691-11	METAL CHIP 47K	0.50% 1/10W
R6021	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R6022	1-249-397-11	CARBON 22	5% 1/4W
R6023	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R6025	1-249-402-11	CARBON 56	5% 1/4W
R6027	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R6028	1-249-437-11	CARBON 47K	5% 1/4W
R6029	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R6030	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R6031	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R6032	1-202-933-61	FUSIBLE 0.1	10% 1/2W F
R6033	1-202-933-61	FUSIBLE 0.1	10% 1/2W F
R6034	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R6035	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R6036	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R6037	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R6038	1-216-295-91	CONDUCTOR, CHIP	
R6039	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R6040	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R6041	1-249-397-11	CARBON 22	5% 1/4W F
R6042	1-249-397-11	CARBON 22	5% 1/4W F
R6043	1-249-425-11	CARBON 4.7K	5% 1/4W F
R6044	1-249-425-11	CARBON 4.7K	5% 1/4W F
R6045	1-216-660-11	METAL CHIP 2.4K	0.50% 1/10W
R6046	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R6047	1-249-437-11	CARBON 47K	5% 1/4W
R6048	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R6049	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R6050	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R6051	1-216-674-11	METAL CHIP 9.1K	0.50% 1/10W
R6052	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R6053	1-249-417-11	CARBON 1K	5% 1/4W
R6054	1-249-417-11	CARBON 1K	5% 1/4W
R6055	1-249-422-11	CARBON 2.7K	5% 1/4W
R6056	1-249-427-11	CARBON 6.8K	5% 1/4W
R6057	1-249-429-11	CARBON 10K	5% 1/4W
R6058	1-249-429-11	CARBON 10K	5% 1/4W
R6059	1-247-843-11	CARBON 3.3K	5% 1/4W
R6060	1-249-405-11	CARBON 100	5% 1/4W F
R6061	1-215-473-00	METAL 150K	1% 1/4W
R6062	1-249-417-11	CARBON 1K	5% 1/4W F
R6063	1-249-397-11	CARBON 22	5% 1/4W F
R6064	1-249-397-11	CARBON 22	5% 1/4W F
R6065	1-249-441-11	CARBON 100K	5% 1/4W
R6066	1-216-366-00	METAL OXIDE 0.56	5% 2W F
R6067	1-249-425-11	CARBON 4.7K	5% 1/4W F
R6068	1-249-425-11	CARBON 4.7K	5% 1/4W F
R6069	1-215-473-00	METAL 150K	1% 1/4W
R6070	1-249-417-11	CARBON 1K	5% 1/4W F
R6071	Δ 1-215-449-00	METAL 15K	1% 1/4W



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The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK
R6072	Δ 1-215-473-81	METAL 150K 1% 1/4W	
R6073	1-247-823-81	CARBON 470 5% 1/4W	
R6075	1-216-422-21	METAL OXIDE 18 5% 1W	F
R6076	1-249-377-11	CARBON 0.47 5% 1/4W	F
R6077	1-249-377-11	CARBON 0.47 5% 1/4W	F
R6078	1-249-377-11	CARBON 0.47 5% 1/4W	F
R6081	1-249-377-11	CARBON 0.47 5% 1/4W	F
R6082	1-249-377-11	CARBON 0.47 5% 1/4W	F
R6083	1-249-377-11	CARBON 0.47 5% 1/4W	F
R6084	1-249-377-11	CARBON 0.47 5% 1/4W	F
R6085	1-212-849-00	FUSIBLE 4.7 5% 1/4W	F
R6086	1-249-429-11	CARBON 10K 5% 1/4W	
<RELAY>			
RY6003	1-515-999-11	RELAY, POWER	
<TRANSFORMER>			
T6002	Δ 1-431-207-11	TRANSFORMER, LINE FILTER	
T6004	Δ 1-429-808-21	TRANSFORMER, CONVERTER	
T6005	Δ 1-429-807-11	TRANSFORMER, CONVERTER (PIT)	

* A-1642-192-A E BOARD, COMPLETE			

4-382-854-11 SCREW (M3X10), P, SW (+)			
7-322-065-19 RUBBER, SILICON RTV (KE490W)			
<CAPACITOR>			
C801	1-110-626-11	ELECT 330MF 20% 160V	
C802	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C803	1-110-626-11	ELECT 330MF 20% 160V	
C804	1-137-364-11	FILM 0.001MF 5% 50V	
C805	1-136-173-00	FILM 0.47MF 5% 50V	
C806	1-102-030-00	CERAMIC 330PF 10% 500V	
C807	1-106-363-00	MYLAR 0.0068MF 200V	
C808	1-107-636-11	ELECT 10MF 20% 160V	
C809	1-126-967-11	ELECT 47MF 20% 50V	
C810	1-130-481-00	FILM 0.0068MF 5% 50V	
C811	1-137-475-11	FILM 2.2MF 10% 250V	
C812	1-126-965-11	ELECT 22MF 20% 50V	
C813	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C814	1-126-968-11	ELECT 100MF 20% 50V	
C815	1-162-114-00	CERAMIC 0.0047MF 2KV	
C816	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C817	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C818	Δ 1-109-833-11	FILM 0.0145MF 3% 2.5KV	
C819	1-137-420-11	FILM 0.047MF 10% 100V	
C820	1-126-959-11	ELECT 0.47MF 20% 50V	
C821	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C823	1-136-601-11	FILM 0.01MF 5% 630V	
C824	1-126-964-11	ELECT 10MF 20% 50V	
C825	1-162-318-11	CERAMIC 0.001MF 10% 500V	
C826	1-130-467-00	FILM 470PF 5% 50V	
C828	1-111-036-11	ELECT 470MF 20% 16V	
C830	1-137-420-11	FILM 0.047MF 10% 100V	
C831	1-126-934-11	ELECT 220MF 20% 16V	
C832	1-126-967-11	ELECT 47MF 20% 50V	
C901	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C902	1-137-370-11	FILM 0.01MF 5% 50V	
C903	1-137-431-11	FILM 560PF 5% 50V	
C904	1-137-358-11	FILM 0.0001MF 5% 50V	
C905	1-104-665-11	ELECT 100MF 20% 25V	
C906	1-137-370-11	FILM 0.01MF 5% 50V	

REF. NO.	PART NO.	DESCRIPTION	REMARK
C907	1-104-665-11	ELECT 100MF 20% 25V	
C908	1-137-361-11	FILM 330PF 5% 50V	
C909	1-126-960-11	ELECT 1MF 20% 50V	
C911	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C912	1-126-960-11	ELECT 1MF 20% 50V	
C913	1-126-960-11	ELECT 1MF 20% 50V	
C915	1-163-239-11	CERAMIC CHIP 33PF 5% 50V	
C916	1-126-963-11	ELECT 4.7MF 20% 50V	
C917	1-126-964-11	ELECT 10MF 20% 50V	
C918	1-137-364-11	FILM 0.001MF 5% 50V	
C920	1-126-959-11	ELECT 0.47MF 20% 50V	
C921	1-126-964-11	ELECT 10MF 20% 50V	
C922	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C923	1-126-964-11	ELECT 10MF 20% 50V	
C924	1-126-933-11	ELECT 100MF 20% 16V	
C925	1-137-372-11	FILM 0.022MF 5% 50V	
C926	1-126-942-61	ELECT 1000MF 20% 25V	
C927	1-137-364-11	FILM 0.001MF 5% 50V	
C928	1-126-940-11	ELECT 330MF 20% 25V	
C929	1-137-416-11	FILM 0.01MF 10% 100V	
C930	1-137-364-11	FILM 0.001MF 5% 50V	
C931	1-126-967-11	ELECT 47MF 20% 50V	
C932	1-126-960-11	ELECT 1MF 20% 50V	
C934	1-137-399-11	FILM 0.1MF 5% 50V	
C935	1-137-399-11	FILM 0.1MF 10% 100V	
C936	1-126-964-11	ELECT 10MF 20% 50V	
C937	1-126-964-11	ELECT 10MF 20% 50V	
C938	1-126-933-11	ELECT 100MF 20% 16V	
C939	1-126-964-11	ELECT 10MF 20% 50V	
C940	1-104-664-11	ELECT 47MF 20% 25V	
C941	1-126-964-11	ELECT 10MF 20% 50V	
C942	1-104-664-11	ELECT 47MF 20% 25V	
C943	1-126-965-11	ELECT 22MF 20% 50V	
C944	1-126-964-11	ELECT 10MF 20% 50V	
C945	1-126-964-11	ELECT 10MF 20% 50V	
C946	1-126-961-11	ELECT 2.2MF 20% 50V	
C947	1-126-942-61	ELECT 1000MF 20% 25V	
C948	1-104-666-11	ELECT 220MF 20% 25V	
C949	1-126-964-11	ELECT 10MF 20% 50V	
C950	1-126-964-11	ELECT 10MF 20% 50V	
C951	1-109-889-11	ELECT 1MF 20% 50V	
C952	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C955	1-126-964-11	ELECT 10MF 20% 50V	
C956	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C957	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C958	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C959	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C980	1-137-368-11	FILM 0.0047MF 5% 50V	
<CHIP CONDUCTOR>			
CJ901	1-216-295-00	CONDUCTOR, CHIP	
CJ902	1-216-295-00	CONDUCTOR, CHIP	
CJ903	1-216-295-00	CONDUCTOR, CHIP	
CJ904	1-216-295-00	CONDUCTOR, CHIP	
<CONNECTOR>			
CN802	* 1-564-510-11	PLUG, CONNECTOR 7P	
CN827	* 1-573-963-11	PIN, CONNECTOR (PC BOARD) 3P	
CN851	* 1-564-509-11	PLUG, CONNECTOR 6P	
CN881	* 1-573-986-11	PIN, CONNECTOR (PC BOARD) 5P	
CN882	* 1-691-135-11	PIN, CONNECTOR (PC BOARD) 4P	
CN884	* 1-573-964-11	PIN, CONNECTOR (PC BOARD) 6P	
CN885	* 1-506-371-00	PIN, CONNECTOR 2P	
CN886	* 1-506-371-00	PIN, CONNECTOR 2P	
CN904	* 1-564-507-11	PLUG, CONNECTOR 4P	

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by Δ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
<DIODE>				<TRANSISTOR>			
D801	8-719-109-85	DIODE RD5.1ESB2		Q801	8-729-119-80	TRANSISTOR 2SC2688-LK	
D802	8-719-404-49	DIODE MA111		Q802	8-729-119-80	TRANSISTOR 2SC2688-LK	
D803	8-719-971-20	DIODE ERC38-06		Q803	8-729-122-12	TRANSISTOR 2SA1221-L	
D804	8-719-908-03	DIODE GP08D		Q806	Δ 8-729-805-07	TRANSISTOR 2SD1887-CA	
D805	Δ 8-719-979-40	DIODE ERC06-15STP11		Q807	8-729-422-27	TRANSISTOR 2SD601A-Q	
D806	8-719-911-19	DIODE 1SS119-25		Q808	8-729-024-30	TRANSISTOR IRF1640LF	
D807	Δ 8-719-979-40	DIODE ERC06-15STP11		Q809	8-729-823-81	TRANSISTOR 2SC4632LS-CB7	
D808	8-719-500-71	DIODE D8LC40		Q810	8-729-231-55	TRANSISTOR 2SC2878-AB	
D809	8-719-911-19	DIODE 1SS119-25		Q811	8-729-823-81	TRANSISTOR 2SC4632LS-CB7	
D810	8-719-945-80	DIODE ERC06-15S		Q813	8-729-216-22	TRANSISTOR 2SA1162-G	
D812	8-719-404-49	DIODE MA111		Q901	8-729-422-27	TRANSISTOR 2SD601A-Q	
D814	8-719-920-67	DIODE ERC91-02		Q902	8-729-140-93	TRANSISTOR 2SB733-34	
D816	8-719-404-49	DIODE MA111		Q903	8-729-140-96	TRANSISTOR 2SD774-34	
D817	8-719-404-49	DIODE MA111		Q904	8-729-422-27	TRANSISTOR 2SD601A-Q	
D818	8-719-404-49	DIODE MA111		Q905	8-729-422-27	TRANSISTOR 2SD601A-Q	
D819	8-719-105-82	DIODE RD5.1M-B2		Q906	8-729-422-27	TRANSISTOR 2SD601A-Q	
D901	8-719-404-49	DIODE MA111		Q907	8-729-231-55	TRANSISTOR 2SC2878-AB	
D904	8-719-404-49	DIODE MA111		Q908	8-729-422-27	TRANSISTOR 2SD601A-Q	
D905	8-719-404-49	DIODE MA111		Q909	8-729-422-27	TRANSISTOR 2SD601A-Q	
D907	8-719-404-49	DIODE MA111		Q910	8-729-422-27	TRANSISTOR 2SD601A-Q	
D908	8-719-105-82	DIODE RD5.1M-B2		Q911	8-729-422-27	TRANSISTOR 2SD601A-Q	
D909	8-719-302-43	DIODE EL1Z		Q912	8-729-216-22	TRANSISTOR 2SA1162-G	
D910	8-719-911-19	DIODE 1SS119-25		Q914	8-729-422-27	TRANSISTOR 2SD601A-Q	
D911	8-719-105-82	DIODE RD5.1M-B2		Q915	8-729-422-27	TRANSISTOR 2SD601A-Q	
D912	8-719-105-82	DIODE RD5.1M-B2		Q916	8-729-027-59	TRANSISTOR DTC144EKA-T146	
D913	8-719-404-49	DIODE MA111		Q917	8-729-027-38	TRANSISTOR DTA144EKA-T146	
D914	8-719-404-49	DIODE MA111		<RESISTOR>			
D915	8-719-404-49	DIODE MA111		R800	1-216-637-11	METAL CHIP 270	0.50% 1/10W
D916	8-719-105-57	DIODE RD3.9M-B1		R801	1-216-041-00	METAL GLAZE 470	5% 1/10W
D917	8-719-404-49	DIODE MA111		R802	1-249-421-11	CARBON 2.2K	5% 1/4W
D918	8-719-404-49	DIODE MA111		R804	1-249-425-11	CARBON 4.7K	5% 1/4W F
D919	8-719-106-81	DIODE RD13M-B3		R805	1-216-435-11	METAL OXIDE 2.7K	5% 1W F
D920	8-759-157-40	IC uPC574J		R806	1-249-431-11	CARBON 15K	5% 1/4W F
D921	8-719-106-81	DIODE RD13M-B3		R807	1-260-325-11	CARBON 560	5% 1/2W
D924	8-719-404-49	DIODE MA111		Δ R808	Δ	CARBON	1/4W
D926	8-719-404-49	DIODE MA111		Δ R809	Δ	CARBON	1/4W
D927	8-719-049-61	DIODE MA3043-M-(TX)		R810	1-249-427-11	CARBON 6.8K	5% 1/4W F
D929	8-719-402-19	DIODE MA3100H-TX		R811	1-216-097-00	METAL GLAZE 100K	5% 1/10W
<FERRITE BEAD>				R812	1-216-395-00	METAL OXIDE 3.3	5% 3W F
FB002	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH		R813	1-216-484-00	METAL OXIDE 3.9K	5% 3W F
<IC>				R814	1-215-919-11	METAL OXIDE 2.2K	5% 3W F
IC901	8-759-133-90	IC uPC339C		R816	1-216-051-00	METAL GLAZE 1.2K	5% 1/10W
IC902	8-759-133-90	IC uPC339C		R817	1-216-395-00	METAL OXIDE 3.3	5% 3W F
IC903	8-759-711-28	IC NJM2058D		R818	1-249-405-11	CARBON 100	5% 1/4W F
IC904	8-759-634-51	IC M5218AP		R819	1-216-083-00	METAL GLAZE 27K	5% 1/10W
IC905	8-759-929-65	IC LM7912CT		R820	1-215-905-11	METAL OXIDE 10	5% 3W F
IC906	8-759-231-58	IC TA7812S		R821	1-216-073-00	METAL GLAZE 10K	5% 1/10W
<COIL>				R822	1-215-928-11	METAL OXIDE 68K	5% 3W F
L801	1-406-665-11	COIL, CHOKE 100UH		R823	1-216-047-91	METAL GLAZE 820	5% 1/10W
L802	1-406-665-11	COIL, CHOKE 100UH		R825	1-215-928-11	METAL OXIDE 68K	5% 3W F
L803	1-422-613-11	COIL, AIR CORE		R826	1-216-033-00	METAL GLAZE 220	5% 1/10W
L804	1-411-286-11	COIL, CHOKE 220UH		R830	1-215-928-11	METAL OXIDE 68K	5% 3W F
L901	1-408-416-00	INDUCTOR 39UH		R831	1-215-919-11	METAL OXIDE 2.2K	5% 3W F
L902	1-408-416-00	INDUCTOR 39UH		R832	1-216-049-00	METAL GLAZE 1K	5% 1/10W
<NEON LAMP>				R835	1-249-474-11	CARBON 1	5% 1/2W F
NL802	1-519-108-99	LAMP, NEON		R836	1-202-818-00	SOLID 1K	20% 1/2W
				R837	1-215-870-11	METAL OXIDE 1.5K	5% 1W F
				R838	1-247-807-31	CARBON 100	5% 1/4W
				R839	1-249-427-11	CARBON 6.8K	5% 1/4W F
				R843	1-202-549-00	SOLID 100	20% 1/2W
				R846	1-202-838-00	SOLID 100K	20% 1/2W
				R847	1-216-073-00	METAL GLAZE 10K	5% 1/10W
				R849	1-249-433-11	CARBON 22K	5% 1/4W
				R850	1-216-081-00	METAL GLAZE 22K	5% 1/10W
				R851	1-216-667-11	METAL CHIP 4.7K	0.50% 1/10W

KP-E61MH11/E61MN11/E61SN11

RM-901

RM-901

RM-901

• The components identified by **E** in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

Les composants identifiés par une trame et une marque **E** sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark **E** are critical for safety. Replace only with part number specified.



REF. NO.	PART NO.	DESCRIPTION	REMARK
R852	1-216-675-11	METAL CHIP 10K	0.50% 1/10W
R854	1-249-447-11	CARBON 1	5% 1/4W F
R855	1-216-691-11	METAL CHIP 47K	0.50% 1/10W
R856	1-216-691-11	METAL CHIP 47K	0.50% 1/10W
R857	1-218-755-11	METAL CHIP 130K	0.50% 1/10W
R858	1-216-676-11	METAL CHIP 11K	0.50% 1/10W
R859	1-249-381-11	CARBON 1	5% 1/4W F
R883	1-216-091-00	METAL GLAZE 56K	5% 1/10W
R888	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W
R901	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R902	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R903	1-216-085-00	METAL GLAZE 33K	5% 1/10W
R904	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R905	1-247-739-11	CARBON 100	5% 1/2W F
R906	1-247-739-11	CARBON 100	5% 1/2W F
R907	1-216-091-00	METAL GLAZE 56K	5% 1/10W
R908	1-216-085-00	METAL GLAZE 33K	5% 1/10W
R909	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R910	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W
R911	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W
R912	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R913	1-216-077-00	METAL GLAZE 15K	5% 1/10W
R914	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R915	1-216-091-00	METAL GLAZE 56K	5% 1/10W
R916	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R917	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R918	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R919	1-216-077-00	METAL GLAZE 15K	5% 1/10W
R920	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R921	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W
R922	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R923	1-216-077-00	METAL GLAZE 15K	5% 1/10W
R924	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W
R926	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R927	1-249-377-11	CARBON 0.47	5% 1/4W F
R928	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W
R930	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R931	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W
R932	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W
R933	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R934	1-216-085-00	METAL GLAZE 33K	5% 1/10W
R935	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R936	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R937	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R938	1-216-679-11	METAL CHIP 15K	0.50% 1/10W
R939	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R940	1-216-083-00	METAL GLAZE 27K	5% 1/10W
R941	1-216-091-00	METAL GLAZE 56K	5% 1/10W
R942	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R943	1-249-377-11	CARBON 0.47	5% 1/4W F
R944	1-216-689-11	METAL GLAZE 39K	5% 1/10W
R945	1-216-077-00	METAL GLAZE 15K	5% 1/10W
R946	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R947	1-216-025-00	METAL GLAZE 100	5% 1/10W
R948	1-216-051-00	METAL GLAZE 1.2K	5% 1/10W
R949	1-216-683-11	METAL CHIP 22K	0.50% 1/10W
R950	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R952	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R954	1-214-777-00	METAL 100K	1% 1/4W
R955	1-214-769-00	METAL 47K	1% 1/4W
R956	1-216-675-11	METAL CHIP 10K	0.50% 1/10W
R957	1-218-754-11	METAL CHIP 120K	0.50% 1/10W
R958	1-218-756-11	METAL CHIP 150K	0.50% 1/10W
R959	1-214-757-00	METAL 15K	1% 1/4W
R960	1-216-077-00	METAL GLAZE 15K	5% 1/10W
R961	1-216-025-00	METAL GLAZE 100	5% 1/10W
R962	1-216-675-11	METAL CHIP 10K	0.50% 1/10W
R963	1-214-749-00	METAL 6.8K	1% 1/4W

REF. NO.	PART NO.	DESCRIPTION	REMARK
R964	1-214-757-00	METAL 15K	1% 1/4W
R965	1-216-091-00	METAL GLAZE 56K	5% 1/10W
R966	1-214-757-00	METAL 15K	1% 1/4W
R967	1-216-025-00	METAL GLAZE 100	5% 1/10W
R968	1-214-751-00	METAL 8.2K	1% 1/4W
R969	1-215-423-00	METAL 1.2K	1% 1/4W
R970	1-214-757-00	METAL 15K	1% 1/4W
R971	1-208-845-11	METAL GLAZE 1M	5% 1/10W
R972	1-216-699-11	METAL CHIP 100K	0.50% 1/10W
R973	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R974	1-216-699-11	METAL CHIP 100K	0.50% 1/10W
R975	1-216-043-91	METAL GLAZE 560	5% 1/10W
R976	1-216-041-00	METAL GLAZE 470	5% 1/10W
R977	1-216-075-00	METAL GLAZE 12K	5% 1/10W
R978	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R979	1-216-075-00	METAL GLAZE 12K	5% 1/10W
R980	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R981	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R982	1-216-671-11	METAL CHIP 6.8K	0.50% 1/10W
R983	E 1-216-083-00	METAL	1/4W
R984	1-216-083-00	METAL GLAZE 27K	5% 1/10W
R985	1-216-681-11	METAL CHIP 18K	0.50% 1/10W
R986	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R987	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W
R988	E 1-216-462-00	METAL	1/4W
R989	1-216-462-00	METAL OXIDE 8.2K	5% 2W F
R990	1-215-897-11	METAL OXIDE 6.8K	5% 2W F
R991	1-216-672-11	METAL CHIP 7.5K	0.50% 1/10W
R994	1-247-807-31	CARBON 100	5% 1/4W
R995	1-216-677-11	METAL CHIP 12K	0.50% 1/10W
R996	1-216-683-11	METAL CHIP 22K	0.50% 1/10W
R997	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R998	1-216-073-00	METAL GLAZE 10K	5% 1/10W
<SPARK GAP>			
SG801	1-519-422-11	GAP, SPARK	
<TRANSFORMER>			
T801	E 1-453-189-11	TRANSFORMER ASSY, FLYBACK	(NX-2631/(A4S))
T802	1-437-209-11	TRANSFORMER, HORIZONTAL DRIVE	
T803	E 1-427-980-11	TRANSFORMER, FERRITE (LOT)	

* A-1642-215-A D BOARD, COMPLETE

4-382-854-11 SCREW (M3X10), P, SW (+)
7-682-952-09 SCREW +PSW 3X16

<CAPACITOR>

C1502	1-126-943-11	ELECT 2200MF	20%	25V
C1503	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C1504	1-126-943-11	ELECT 2200MF	20%	25V
C1505	1-136-177-00	FILM 1MF	5%	50V
C1506	1-102-228-00	CERAMIC 470PF	10%	500V
C1507	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C1508	1-163-251-11	CERAMIC CHIP 100PF	5%	50V
C1509	1-126-968-11	ELECT 100MF	20%	50V
C1510	1-137-401-11	FILM 0.22MF	10%	100V
C1511	1-137-423-11	FILM 0.15MF	10%	100V
C1512	1-137-423-11	FILM 0.15MF	10%	100V
C1513	1-163-243-11	CERAMIC CHIP 47PF	5%	50V
C1514	1-163-031-11	CERAMIC CHIP 0.01MF		50V
C1515	1-163-031-11	CERAMIC CHIP 0.01MF		50V

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C1516	1-136-177-00	FILM 1MF 5%	50V	C1845	1-163-809-11	CERAMIC CHIP 0.047MF 10%	25V
C1517	1-163-259-91	CERAMIC CHIP 220PF 5%	50V	C1846	1-163-809-11	CERAMIC CHIP 0.047MF 10%	25V
C1518	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V	C1847	1-163-809-11	CERAMIC CHIP 0.047MF 10%	25V
C1551	1-126-964-11	ELECT 10MF 20%	50V	C1848	1-163-809-11	CERAMIC CHIP 0.047MF 10%	25V
C1603	1-163-251-11	CERAMIC CHIP 100PF 5%	50V	C1849	1-126-968-11	ELECT 100MF 20%	50V
C1604	1-163-251-11	CERAMIC CHIP 100PF 5%	50V	C1850	1-126-968-11	ELECT 100MF 20%	50V
C1605	1-163-251-11	CERAMIC CHIP 100PF 5%	50V	C1851	1-137-399-11	FILM 0.1MF 5%	50V
C1606	1-163-251-11	CERAMIC CHIP 100PF 5%	50V	C1852	1-126-968-11	ELECT 100MF 20%	50V
C1607	1-163-251-11	CERAMIC CHIP 100PF 5%	50V	C1853	1-137-378-11	FILM 0.22MF 5%	50V
C1608	1-163-251-11	CERAMIC CHIP 100PF 5%	50V	C1854	1-126-963-11	ELECT 4.7MF 20%	50V
C1611	1-126-968-11	ELECT 100MF 20%	50V	C1855	1-126-960-11	ELECT 1MF 20%	50V
C1612	1-104-665-11	ELECT 100MF 20%	25V	C1856	1-104-665-11	ELECT 100MF 20%	25V
C1613	1-126-968-11	ELECT 100MF 20%	50V	C1857	1-126-968-11	ELECT 100MF 20%	50V
C1615	1-104-665-11	ELECT 100MF 20%	25V	C1858	1-163-809-11	CERAMIC CHIP 0.047MF 10%	25V
C1617	1-126-941-11	ELECT 470MF 20%	25V	C1859	1-163-809-11	CERAMIC CHIP 0.047MF 10%	25V
C1619	1-104-665-11	ELECT 100MF 20%	25V	C1860	1-163-809-11	CERAMIC CHIP 0.047MF 10%	25V
C1620	1-126-941-11	ELECT 470MF 20%	25V	C1861	1-126-968-11	ELECT 100MF 20%	50V
C1622	1-104-665-11	ELECT 100MF 20%	25V	C1862	1-126-960-11	ELECT 1MF 20%	50V
C1701	1-126-935-11	ELECT 470MF 20%	16V	C1863	1-136-173-00	FILM 0.47MF 5%	50V
C1702	1-163-809-11	CERAMIC CHIP 0.047MF 10%	25V	C1864	1-126-960-11	ELECT 1MF 20%	50V
C1703	1-163-099-00	CERAMIC CHIP 18PF 5%	50V	C1865	1-126-960-11	ELECT 1MF 20%	50V
C1704	1-163-259-91	CERAMIC CHIP 220PF 5%	50V	C1866	1-126-967-11	ELECT 47MF 20%	50V
C1705	1-163-099-00	CERAMIC CHIP 18PF 5%	50V				
C1709	1-163-031-11	CERAMIC CHIP 0.01MF 5%	50V			<CHIP CONDUCTOR>	
C1723	1-163-251-11	CERAMIC CHIP 100PF 5%	50V	CJ1	1-216-295-00	CONDUCTOR, CHIP	
C1724	1-163-251-11	CERAMIC CHIP 100PF 5%	50V	CJ2	1-216-295-00	CONDUCTOR, CHIP	
C1801	1-126-960-11	ELECT 1MF 20%	50V	CJ3	1-216-295-00	CONDUCTOR, CHIP	
C1802	1-126-964-11	ELECT 10MF 20%	50V	CJ4	1-216-295-00	CONDUCTOR, CHIP	
C1803	1-163-809-11	CERAMIC CHIP 0.047MF 10%	25V	CJ5	1-216-295-00	CONDUCTOR, CHIP	
C1805	1-163-809-11	CERAMIC CHIP 0.047MF 10%	25V	CJ6	1-216-295-00	CONDUCTOR, CHIP	
C1806	1-216-295-00	CONDUCTOR, CHIP		CJ7	1-216-295-00	CONDUCTOR, CHIP	
C1807	1-163-809-11	CERAMIC CHIP 0.047MF 10%	25V	CJ8	1-216-295-00	CONDUCTOR, CHIP	
C1808	1-163-809-11	CERAMIC CHIP 0.047MF 10%	25V	CJ9	1-216-295-00	CONDUCTOR, CHIP	
C1809	1-104-661-91	ELECT 330MF 20%	16V	CJ10	1-216-295-00	CONDUCTOR, CHIP	
C1810	1-104-661-91	ELECT 330MF 20%	16V	CJ11	1-216-295-00	CONDUCTOR, CHIP	
C1811	1-163-809-11	CERAMIC CHIP 0.047MF 10%	25V	CJ12	1-216-295-00	CONDUCTOR, CHIP	
C1812	1-163-809-11	CERAMIC CHIP 0.047MF 10%	25V	CJ13	1-216-295-00	CONDUCTOR, CHIP	
C1813	1-163-275-11	CERAMIC CHIP 1000PF 5%	50V	CJ14	1-216-295-00	CONDUCTOR, CHIP	
C1814	1-163-809-11	CERAMIC CHIP 0.047MF 10%	25V	CJ15	1-216-295-00	CONDUCTOR, CHIP	
C1816	1-163-251-11	CERAMIC CHIP 100PF 5%	50V	CJ16	1-216-295-00	CONDUCTOR, CHIP	
C1817	1-163-251-11	CERAMIC CHIP 100PF 5%	50V	CJ17	1-216-295-00	CONDUCTOR, CHIP	
C1818	1-163-809-11	CERAMIC CHIP 0.047MF 10%	25V	CJ18	1-216-295-00	CONDUCTOR, CHIP	
C1819	1-126-933-11	ELECT 100MF 20%	16V	CJ19	1-216-295-00	CONDUCTOR, CHIP	
C1820	1-163-005-11	CERAMIC CHIP 470PF 10%	50V	CJ20	1-216-295-00	CONDUCTOR, CHIP	
C1821	1-126-959-11	ELECT 0.47MF 20%	50V	CJ21	1-216-295-00	CONDUCTOR, CHIP	
C1822	1-163-005-11	CERAMIC CHIP 470PF 10%	50V	CJ22	1-216-295-00	CONDUCTOR, CHIP	
C1823	1-126-960-11	ELECT 1MF 20%	50V	CJ23	1-216-295-00	CONDUCTOR, CHIP	
C1824	1-126-960-11	ELECT 1MF 20%	50V	CJ24	1-216-295-00	CONDUCTOR, CHIP	
C1825	1-126-967-11	ELECT 47MF 20%	50V	CJ25	1-216-295-00	CONDUCTOR, CHIP	
C1826	1-126-967-11	ELECT 47MF 20%	50V	CJ26	1-216-295-00	CONDUCTOR, CHIP	
C1827	1-163-809-11	CERAMIC CHIP 0.047MF 10%	25V	CJ27	1-216-295-00	CONDUCTOR, CHIP	
C1828	1-163-809-11	CERAMIC CHIP 0.047MF 10%	25V	CJ28	1-216-295-00	CONDUCTOR, CHIP	
C1829	1-163-809-11	CERAMIC CHIP 0.047MF 10%	25V	CJ29	1-216-295-00	CONDUCTOR, CHIP	
C1830	1-163-809-11	CERAMIC CHIP 0.047MF 10%	25V	CJ30	1-216-295-00	CONDUCTOR, CHIP	
C1831	1-104-661-91	ELECT 330MF 20%	16V	CJ31	1-216-295-00	CONDUCTOR, CHIP	
C1832	1-104-661-91	ELECT 330MF 20%	16V	CJ32	1-216-295-00	CONDUCTOR, CHIP	
C1833	1-163-809-11	CERAMIC CHIP 0.047MF 10%	25V	CJ33	1-216-295-00	CONDUCTOR, CHIP	
C1834	1-163-809-11	CERAMIC CHIP 0.047MF 10%	25V	CJ34	1-216-295-00	CONDUCTOR, CHIP	
C1835	1-163-809-11	CERAMIC CHIP 0.047MF 10%	25V	CJ35	1-216-295-00	CONDUCTOR, CHIP	
C1836	1-163-809-11	CERAMIC CHIP 0.047MF 10%	25V	CJ36	1-216-295-00	CONDUCTOR, CHIP	
C1837	1-164-489-11	CERAMIC CHIP 0.22MF 10%	16V	CJ37	1-216-295-00	CONDUCTOR, CHIP	
C1838	1-126-968-11	ELECT 100MF 20%	50V	CJ39	1-216-295-00	CONDUCTOR, CHIP	
C1839	1-126-968-11	ELECT 100MF 20%	50V	CJ40	1-216-295-00	CONDUCTOR, CHIP	
C1840	1-126-960-11	ELECT 1MF 20%	50V	CJ42	1-216-295-00	CONDUCTOR, CHIP	
C1841	1-126-967-11	ELECT 47MF 20%	50V	CJ43	1-216-295-00	CONDUCTOR, CHIP	
C1842	1-163-251-11	CERAMIC CHIP 100PF 5%	50V	CJ44	1-216-295-00	CONDUCTOR, CHIP	
C1843	1-163-251-11	CERAMIC CHIP 100PF 5%	50V	CJ45	1-216-295-00	CONDUCTOR, CHIP	
C1844	1-126-967-11	ELECT 47MF 20%	50V	CJ46	1-216-295-00	CONDUCTOR, CHIP	

D

Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK
CJ47	1-216-295-00	CONDUCTOR, CHIP	
CJ48	1-216-295-00	CONDUCTOR, CHIP	
CJ49	1-216-295-00	CONDUCTOR, CHIP	
CJ50	1-216-295-00	CONDUCTOR, CHIP	
CJ51	1-216-295-00	CONDUCTOR, CHIP	
CJ52	1-216-295-00	CONDUCTOR, CHIP	
CJ53	1-216-295-00	CONDUCTOR, CHIP	
CJ54	1-216-295-00	CONDUCTOR, CHIP	
CJ56	1-216-295-00	CONDUCTOR, CHIP	
CJ57	1-216-295-00	CONDUCTOR, CHIP	
CJ58	1-216-295-00	CONDUCTOR, CHIP	
CJ59	1-216-295-00	CONDUCTOR, CHIP	
CJ60	1-216-295-00	CONDUCTOR, CHIP	
CJ62	1-216-295-00	CONDUCTOR, CHIP	
CJ63	1-216-295-00	CONDUCTOR, CHIP	
CJ64	1-216-295-00	CONDUCTOR, CHIP	

<CONNECTOR>

CN1509	*1-564-506-11	PLUG, CONNECTOR 3P	
CN1513	*1-564-506-11	PLUG, CONNECTOR 3P	
CN1612	*1-564-507-11	PLUG, CONNECTOR 4P	
CN1642	*1-564-507-11	PLUG, CONNECTOR 4P	
CN1672	*1-564-507-11	PLUG, CONNECTOR 4P	
CN1716	*1-564-507-11	PLUG, CONNECTOR 4P	
CN1756	*1-564-508-11	PLUG, CONNECTOR 5P	
CN1757	*1-564-515-11	PLUG, CONNECTOR 12P	

<DIODE>

D1501	8-719-908-03	DIODE GP08D	
D1502	8-719-109-89	DIODE RD5.6ESB2	
D1503	8-719-971-20	DIODE ERC38-06	
D1505	8-719-109-89	DIODE RD5.6ESB2	
D1551	8-719-109-71	DIODE RD3.9ESB1	
D1552	8-719-991-33	DIODE 1SS133T-77	
D1553	8-719-991-33	DIODE 1SS133T-77	
D1601	8-719-908-03	DIODE GP08D	
D1602	8-719-908-03	DIODE GP08D	
D1603	8-719-908-03	DIODE GP08D	
D1604	8-719-908-03	DIODE GP08D	
D1803	8-719-991-33	DIODE 1SS133T-77	
D1827	8-719-982-03	DIODE MTZJ-3.6A	
D1931	8-719-924-16	DIODE MTZJ-T-77-24	
D1932	8-719-924-16	DIODE MTZJ-T-77-24	
D1934	8-719-924-16	DIODE MTZJ-T-77-24	
D1935	8-719-924-16	DIODE MTZJ-T-77-24	
D1936	8-719-924-16	DIODE MTZJ-T-77-24	
D1937	8-719-924-16	DIODE MTZJ-T-77-24	
D1942	8-719-924-16	DIODE MTZJ-T-77-24	
D1945	8-719-924-16	DIODE MTZJ-T-77-24	
D1946	8-719-924-16	DIODE MTZJ-T-77-24	
D1947	8-719-924-16	DIODE MTZJ-T-77-24	
D1948	8-719-921-86	DIODE MTZJ-13	
D1949	8-719-924-16	DIODE MTZJ-T-77-24	
D1951	8-719-921-86	DIODE MTZJ-13	
D1953	8-719-921-86	DIODE MTZJ-13	
D1954	8-719-921-86	DIODE MTZJ-13	

<FUSE>

F1601	Δ 1-532-745-11	FUSE, GLASS TUBE 3.15A/125V	
	1-533-223-11	CLIP, FUSE ; F1601	
F1602	Δ 1-532-745-11	FUSE, GLASS TUBE 3.15A/125V	
	1-533-223-11	CLIP, FUSE ; F1602	

<IC>

IC1501	8-759-192-71	IC STV9379	
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REF. NO.	PART NO.	DESCRIPTION	REMARK
IC1601	8-749-010-88	IC STK392-010	
IC1602	8-749-010-88	IC STK392-010	
IC1701	8-752-861-57	IC CXP85112B-613S	
IC1702	8-759-041-54	IC MN1382S	
IC1801	8-759-327-52	IC PM0002B	
IC1802	8-759-327-51	IC PA0053B	
IC1803	8-759-012-67	IC MC7905CT	
IC1804	8-759-231-53	IC TA7805S	
IC1805	8-759-327-52	IC PM0002B	
IC1806	8-759-327-51	IC PA0053B	
IC1807	8-759-929-65	IC LM7912CT	
IC1808	8-759-231-58	IC TA7812S	
IC1809	8-759-327-52	IC PM0002B	
IC1931	8-759-711-28	IC NJM2058D	
IC1932	8-759-711-28	IC NJM2058D	

<COIL>

L1501	1-412-533-21	INDUCTOR 47UH	
L1502	1-412-533-21	INDUCTOR 47UH	
L1503	1-412-524-11	INDUCTOR 8.2UH	
L1515	1-410-470-11	INDUCTOR 10UH	
L1516	1-410-482-31	INDUCTOR 100UH	
L1701	1-410-470-11	INDUCTOR 10UH	
L1801	1-406-975-21	COIL, CHOKE 47UH	
L1802	1-406-975-21	COIL, CHOKE 47UH	

<TRANSISTOR>

Q1501	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q1502	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q1551	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1552	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q1701	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q1801	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q1802	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1804	8-729-422-27	TRANSISTOR 2SD601A-Q	

<RESISTOR>

R1501	1-216-049-00	METAL GLAZE 1K	5%	1/10W	
R1502	1-216-681-11	METAL CHIP 18K	0.50%	1/10W	
R1503	1-216-653-11	METAL CHIP 1.2K	0.50%	1/10W	
R1504	1-216-081-00	METAL GLAZE 22K	5%	1/10W	
R1505	1-216-085-00	METAL GLAZE 33K	5%	1/10W	
R1506	1-216-049-00	METAL GLAZE 1K	5%	1/10W	
R1507	1-216-683-11	METAL CHIP 22K	0.50%	1/10W	
R1508	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W	
R1509	1-249-383-11	CARBON 1.5	5%	1/4W	F
R1510	1-214-661-21	METAL 1.5	1%	1/4W	
R1512	1-215-912-11	METAL OXIDE 150	5%	3W	F
R1514	1-216-635-11	METAL CHIP 220	0.50%	1/10W	
R1515	1-216-645-11	METAL CHIP 560	0.50%	1/10W	
R1516	1-214-661-21	METAL 1.5	1%	1/4W	
R1517	1-216-647-11	METAL CHIP 680	0.50%	1/10W	
R1518	1-216-661-11	METAL CHIP 2.7K	0.50%	1/10W	
R1519	1-249-377-11	CARBON 0.47	5%	1/4W	F
R1520	1-249-377-11	CARBON 0.47	5%	1/4W	F
R1521	1-216-049-00	METAL GLAZE 1K	5%	1/10W	
R1522	1-216-049-00	METAL GLAZE 1K	5%	1/10W	
R1523	1-216-033-00	METAL GLAZE 220	5%	1/10W	
R1551	1-216-081-00	METAL GLAZE 22K	5%	1/10W	
R1552	1-216-063-91	METAL GLAZE 3.9K	5%	1/10W	
R1553	1-216-077-00	METAL GLAZE 15K	5%	1/10W	
R1554	1-216-049-00	METAL GLAZE 1K	5%	1/10W	
R1559	1-216-073-00	METAL GLAZE 10K	5%	1/10W	
R1562	1-216-025-00	METAL GLAZE 100	5%	1/10W	
R1603	1-216-663-11	METAL CHIP 3.3K	0.50%	1/10W	
R1604	1-216-663-11	METAL CHIP 3.3K	0.50%	1/10W	

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REF. NO.	PART NO.	DESCRIPTION		REMARK
R1605	1-216-663-11	METAL CHIP 3.3K	0.50%	1/10W
R1606	1-216-663-11	METAL CHIP 3.3K	0.50%	1/10W
R1607	1-216-663-11	METAL CHIP 3.3K	0.50%	1/10W
R1608	1-216-663-11	METAL CHIP 3.3K	0.50%	1/10W
R1610	1-214-729-00	METAL 1K	1%	1/4W
R1612	1-214-729-00	METAL 1K	1%	1/4W
R1613	1-214-673-00	METAL 4.7	1%	1/4W
R1615	1-214-673-00	METAL 4.7	1%	1/4W
R1616	1-214-673-00	METAL 4.7	1%	1/4W
R1618	1-214-673-00	METAL 4.7	1%	1/4W
R1619	1-214-673-00	METAL 4.7	1%	1/4W
R1620	1-214-673-00	METAL 4.7	1%	1/4W
R1621	1-214-673-00	METAL 4.7	1%	1/4W
R1622	1-214-673-00	METAL 4.7	1%	1/4W
R1623	1-214-729-00	METAL 1K	1%	1/4W
R1624	1-214-729-00	METAL 1K	1%	1/4W
R1625	1-214-673-00	METAL 4.7	1%	1/4W
R1626	1-214-673-00	METAL 4.7	1%	1/4W
R1627	1-214-673-00	METAL 4.7	1%	1/4W
R1628	1-214-673-00	METAL 4.7	1%	1/4W
R1629	1-214-673-00	METAL 4.7	1%	1/4W
R1630	1-214-673-00	METAL 4.7	1%	1/4W
R1631	1-214-729-00	METAL 1K	1%	1/4W
R1632	1-214-673-00	METAL 4.7	1%	1/4W
R1633	1-214-673-00	METAL 4.7	1%	1/4W
R1634	1-214-729-00	METAL 1K	1%	1/4W
R1635	1-214-673-00	METAL 4.7	1%	1/4W
R1636	1-214-673-00	METAL 4.7	1%	1/4W
R1637	1-214-673-00	METAL 4.7	1%	1/4W
R1638	1-214-673-00	METAL 4.7	1%	1/4W
R1639	1-214-673-00	METAL 4.7	1%	1/4W
R1640	1-214-673-00	METAL 4.7	1%	1/4W
R1641	1-214-673-00	METAL 4.7	1%	1/4W
R1642	1-214-673-00	METAL 4.7	1%	1/4W
R1717	1-216-033-00	METAL GLAZE 220	5%	1/10W
R1721	1-216-033-00	METAL GLAZE 220	5%	1/10W
R1737	1-216-033-00	METAL GLAZE 220	5%	1/10W
R1740	1-216-025-00	METAL GLAZE 100	5%	1/10W
R1748	1-216-033-00	METAL GLAZE 220	5%	1/10W
R1749	1-216-295-00	CONDUCTOR, CHIP		
R1751	1-216-081-00	METAL GLAZE 22K	5%	1/10W
R1752	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R1753	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R1760	1-216-295-00	CONDUCTOR, CHIP		
R1788	1-216-675-11	METAL CHIP 10K	0.50%	1/10W
R1801	1-216-049-00	METAL GLAZE 1K	5%	1/10W
R1802	1-216-049-00	METAL GLAZE 1K	5%	1/10W
R1804	1-216-295-00	CONDUCTOR, CHIP		
R1806	1-216-081-00	METAL GLAZE 22K	5%	1/10W
R1807	1-216-077-00	METAL GLAZE 15K	5%	1/10W
R1808	1-216-049-00	METAL GLAZE 1K	5%	1/10W
R1809	1-216-081-00	METAL GLAZE 22K	5%	1/10W
R1810	1-216-097-00	METAL GLAZE 100K	5%	1/10W
R1811	1-216-081-00	METAL GLAZE 22K	5%	1/10W
R1812	1-216-097-00	METAL GLAZE 100K	5%	1/10W
R1813	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R1815	1-218-762-11	METAL CHIP 270K	0.50%	1/10W
R1816	1-216-097-00	METAL GLAZE 100K	5%	1/10W
R1817	1-216-033-00	METAL GLAZE 220	5%	1/10W
R1818	1-216-025-00	METAL GLAZE 100	5%	1/10W
R1819	1-216-025-00	METAL GLAZE 100	5%	1/10W
R1820	1-216-025-00	METAL GLAZE 100	5%	1/10W
R1821	1-216-097-00	METAL GLAZE 100K	5%	1/10W
R1824	1-216-685-11	METAL CHIP 27K	0.50%	1/10W
R1825	1-216-685-11	METAL CHIP 27K	0.50%	1/10W
R1826	1-216-685-11	METAL CHIP 27K	0.50%	1/10W
R1827	1-216-685-11	METAL CHIP 27K	0.50%	1/10W
R1828	1-216-685-11	METAL CHIP 27K	0.50%	1/10W

REF. NO.	PART NO.	DESCRIPTION		REMARK
R1829	1-216-685-11	METAL CHIP 27K	0.50%	1/10W
R1830	1-216-025-00	METAL GLAZE 100	5%	1/10W
R1831	1-216-049-00	METAL GLAZE 1K	5%	1/10W
R1832	1-216-677-11	METAL CHIP 12K	0.50%	1/10W
R1833	1-216-049-00	METAL GLAZE 1K	5%	1/10W
R1834	1-216-049-00	METAL GLAZE 1K	5%	1/10W
R1835	1-216-025-00	METAL GLAZE 100	5%	1/10W
R1836	1-216-081-00	METAL GLAZE 22K	5%	1/10W
R1837	1-216-675-11	METAL CHIP 10K	0.50%	1/10W
R1838	1-216-667-11	METAL CHIP 4.7K	0.50%	1/10W
R1839	1-216-031-00	METAL GLAZE 180	5%	1/10W
R1840	1-216-675-11	METAL CHIP 10K	0.50%	1/10W
R1841	1-216-675-11	METAL CHIP 10K	0.50%	1/10W
R1842	1-216-025-00	METAL GLAZE 100	5%	1/10W
R1843	1-216-667-11	METAL CHIP 4.7K	0.50%	1/10W
R1844	1-216-025-00	METAL GLAZE 100	5%	1/10W
R1846	1-216-125-00	METAL GLAZE 1.5M	5%	1/10W
R1847	1-216-675-11	METAL CHIP 10K	0.50%	1/10W
R1849	1-216-067-00	METAL GLAZE 5.6K	5%	1/10W
R1850	1-216-097-00	METAL GLAZE 100K	5%	1/10W
R1851	1-216-043-91	METAL GLAZE 560	5%	1/10W
R1852	1-216-097-00	METAL GLAZE 100K	5%	1/10W
R1853	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R1854	1-216-025-00	METAL GLAZE 100	5%	1/10W
R1855	1-216-097-00	METAL GLAZE 100K	5%	1/10W
R1856	1-216-025-00	METAL GLAZE 100	5%	1/10W
R1857	1-216-033-00	METAL GLAZE 220	5%	1/10W
R1858	1-216-097-00	METAL GLAZE 100K	5%	1/10W
R1859	1-216-025-00	METAL GLAZE 100	5%	1/10W
R1860	1-216-025-00	METAL GLAZE 100	5%	1/10W
R1861	1-216-473-11	METAL OXIDE 56	5%	3W F
R1862	1-216-473-11	METAL OXIDE 56	5%	3W F
R1863	1-216-025-00	METAL GLAZE 100	5%	1/10W
R1864	1-216-025-00	METAL GLAZE 100	5%	1/10W
R1865	1-216-473-11	METAL OXIDE 56	5%	3W F
R1866	1-216-473-11	METAL OXIDE 56	5%	3W F
R1867	1-218-761-11	METAL CHIP 240K	0.50%	1/10W
R1868	1-216-025-00	METAL GLAZE 100	5%	1/10W
R1869	1-216-685-11	METAL CHIP 27K	0.50%	1/10W
R1870	1-216-685-11	METAL CHIP 27K	0.50%	1/10W
R1871	1-216-685-11	METAL CHIP 27K	0.50%	1/10W
R1872	1-216-685-11	METAL CHIP 27K	0.50%	1/10W
R1873	1-216-685-11	METAL CHIP 27K	0.50%	1/10W
R1874	1-216-685-11	METAL CHIP 27K	0.50%	1/10W
R1875	1-216-687-11	METAL CHIP 33K	0.50%	1/10W
R1876	1-216-025-00	METAL GLAZE 100	5%	1/10W
R1877	1-216-695-11	METAL CHIP 68K	0.50%	1/10W
R1878	1-216-675-11	METAL CHIP 10K	0.50%	1/10W
R1879	1-216-685-11	METAL CHIP 27K	0.50%	1/10W
R1880	1-216-678-11	METAL CHIP 13K	0.50%	1/10W
R1881	1-216-651-11	METAL CHIP 1K	0.50%	1/10W
R1883	1-216-677-11	METAL CHIP 12K	0.50%	1/10W
R1884	1-216-675-11	METAL CHIP 10K	0.50%	1/10W
R1885	1-216-049-00	METAL GLAZE 1K	5%	1/10W
R1886	1-216-031-00	METAL GLAZE 180	5%	1/10W
R1887	1-216-675-11	METAL CHIP 10K	0.50%	1/10W
R1888	1-216-667-11	METAL CHIP 4.7K	0.50%	1/10W
R1889	1-216-667-11	METAL CHIP 4.7K	0.50%	1/10W
R1890	1-216-125-00	METAL GLAZE 1.5M	5%	1/10W
R1891	1-216-675-11	METAL CHIP 10K	0.50%	1/10W
R1892	1-216-061-00	METAL GLAZE 3.3K	5%	1/10W
R1893	1-216-097-00	METAL GLAZE 100K	5%	1/10W
R1894	1-249-389-11	CARBON 4.7	5%	1/4W F
R1895	1-216-043-91	METAL GLAZE 560	5%	1/10W
R1896	1-249-389-11	CARBON 4.7	5%	1/4W F
R1897	1-216-097-00	METAL GLAZE 100K	5%	1/10W
R1898	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R1899	1-216-097-00	METAL GLAZE 100K	5%	1/10W

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REF. NO.	PART NO.	DESCRIPTION	REMARK
R1900	1-216-033-00	METAL GLAZE 220	5% 1/10W
R1901	1-216-025-00	METAL GLAZE 100	5% 1/10W
R1902	1-216-025-00	METAL GLAZE 100	5% 1/10W
R1903	1-216-025-00	METAL GLAZE 100	5% 1/10W
R1904	1-216-025-00	METAL GLAZE 100	5% 1/10W
R1905	1-216-097-00	METAL GLAZE 100K	5% 1/10W
R1906	1-218-764-11	METAL CHIP 330K	0.50% 1/10W
R1908	1-216-685-11	METAL CHIP 27K	0.50% 1/10W
R1909	1-216-025-00	METAL GLAZE 100	5% 1/10W
R1910	1-216-685-11	METAL CHIP 27K	0.50% 1/10W
R1911	1-216-685-11	METAL CHIP 27K	0.50% 1/10W
R1912	1-216-685-11	METAL CHIP 27K	0.50% 1/10W
R1913	1-216-685-11	METAL CHIP 27K	0.50% 1/10W
R1914	1-216-685-11	METAL CHIP 27K	0.50% 1/10W
R1915	1-216-685-11	METAL CHIP 27K	0.50% 1/10W
R1916	1-216-025-00	METAL GLAZE 100	5% 1/10W
R1917	1-216-675-11	METAL CHIP 10K	0.50% 1/10W
R1918	1-216-667-11	METAL CHIP 4.7K	0.50% 1/10W
R1919	1-216-685-11	METAL CHIP 27K	0.50% 1/10W
R1920	1-216-667-11	METAL CHIP 4.7K	0.50% 1/10W
R1922	1-218-758-11	METAL CHIP 180K	0.50% 1/10W
R1923	1-216-677-11	METAL CHIP 12K	0.50% 1/10W
R1925	1-216-031-00	METAL GLAZE 180	5% 1/10W
R1926	1-216-675-11	METAL CHIP 10K	0.50% 1/10W
R1927	1-216-125-00	METAL GLAZE 1.5M	5% 1/10W
R1928	1-216-675-11	METAL CHIP 10K	0.50% 1/10W
R1929	1-216-685-11	METAL CHIP 27K	0.50% 1/10W
R1931	1-216-689-11	METAL CHIP 39K	0.50% 1/10W
R1935	1-218-766-11	METAL CHIP 390K	0.50% 1/10W
R1937	1-216-675-11	METAL CHIP 10K	0.50% 1/10W
R1938	1-216-679-11	METAL CHIP 15K	0.50% 1/10W
R1940	1-216-677-11	METAL CHIP 12K	0.50% 1/10W
R1941	1-216-675-11	METAL CHIP 10K	0.50% 1/10W
R1942	1-216-675-11	METAL CHIP 10K	0.50% 1/10W
R1944	1-216-675-11	METAL CHIP 10K	0.50% 1/10W
R1947	1-216-077-00	METAL GLAZE 15K	5% 1/10W
R1948	1-216-095-00	METAL GLAZE 82K	5% 1/10W
R1949	1-216-659-11	METAL CHIP 2.2K	0.50% 1/10W
R1950	1-216-659-11	METAL CHIP 2.2K	0.50% 1/10W
R1951	1-216-675-11	METAL CHIP 10K	0.50% 1/10W
R1952	1-216-675-11	METAL CHIP 10K	0.50% 1/10W
R1954	1-216-675-11	METAL CHIP 10K	0.50% 1/10W
R1955	1-216-675-11	METAL CHIP 10K	0.50% 1/10W
R1956	1-216-669-11	METAL CHIP 5.6K	0.50% 1/10W
R1957	1-216-693-11	METAL CHIP 56K	0.50% 1/10W
R1958	1-216-669-11	METAL CHIP 5.6K	0.50% 1/10W
R1959	1-216-699-11	METAL CHIP 100K	0.50% 1/10W
R1960	1-216-675-11	METAL CHIP 10K	0.50% 1/10W
R1961	1-216-675-11	METAL CHIP 10K	0.50% 1/10W
R1962	1-216-077-00	METAL GLAZE 15K	5% 1/10W
R1963	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R1964	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R1965	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R1966	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R1967	1-216-071-00	METAL GLAZE 8.2K	5% 1/10W
R1970	1-216-651-11	METAL CHIP 1K	0.50% 1/10W
R1981	1-216-473-11	METAL OXIDE 56	5% 3W F
R1982	1-216-473-11	METAL OXIDE 56	5% 3W F
R1985	1-216-025-00	METAL GLAZE 100	5% 1/10W

<THERMISTOR>

TH1501	1-800-193-00	THERMISTOR
TH1801	8-719-991-33	DIODE ISS133T-77

<CRYSTAL>

X1701	1-579-917-11	VIBRATOR, CRYSTAL
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REF. NO.	PART NO.	DESCRIPTION	REMARK

	* A-1646-135-A	HA BOARD, COMPLETE	*****
<CAPACITOR>			
C3033	1-101-005-00	CERAMIC 0.022MF	50V
C3034	1-101-005-00	CERAMIC 0.022MF	50V
C3035	1-126-967-11	ELECT 47MF	20% 16V
<CONNECTOR>			
CN3001	* 1-564-526-11	PLUG, CONNECTOR 11P	
CN3005	* 1-564-519-11	PLUG, CONNECTOR 4P	
<JACK>			
J3001	1-764-073-11	TERMINAL BLOCK, S 4P	
J3002	1-691-293-11	JACK	
<COIL>			
L3001	1-408-421-00	INDUCTOR 100UH	
L3002	1-408-421-00	INDUCTOR 100UH	
<RESISTOR>			
R3007	1-249-425-11	CARBON 4.7K	5% 1/4W
R3008	1-249-422-11	CARBON 2.7K	5% 1/4W
R3009	1-249-419-11	CARBON 1.5K	5% 1/4W
R3010	1-249-417-11	CARBON 1K	5% 1/4W
R3011	1-249-415-11	CARBON 680	5% 1/4W
R3012	1-249-419-11	CARBON 1.5K	5% 1/4W
R3013	1-249-419-11	CARBON 1.5K	5% 1/4W
R3036	1-249-409-11	CARBON 220	5% 1/4W
R3037	1-249-409-11	CARBON 220	5% 1/4W
R3038	1-249-409-11	CARBON 220	5% 1/4W
R3039	1-249-409-11	CARBON 220	5% 1/4W
<SWITCH>			
S3009	1-571-731-11	SWITCH, TACTIL	
S3010	1-571-731-11	SWITCH, TACTIL	
S3011	1-571-731-11	SWITCH, TACTIL	
S3012	1-571-731-11	SWITCH, TACTIL	
S3013	1-571-731-11	SWITCH, TACTIL	

	* A-1646-136-A	HB BOARD, COMPLETE	*****
	4-033-777-01	HOLDER, LED	
<CAPACITOR>			
C3012	1-126-157-11	ELECT 10MF	20% 16V
<CONNECTOR>			
CN3002	* 1-564-523-11	PLUG, CONNECTOR 8P	
<DIODE>			
D3002	8-719-812-41	DIODE TLR124	
D3003	8-719-812-41	DIODE TLR124	
D3004	8-719-812-41	DIODE TLR124	

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

HB **HC** **U**

REF. NO.	PART NO.	DESCRIPTION	REMARK
<IC>			
IC3001	8-741-780-51	IC SBX1780-51	
<RESISTOR>			
R3001	1-249-413-11	CARBON 470 5% 1/4W	
R3002	1-249-425-11	CARBON 4.7K 5% 1/4W	
R3003	1-249-422-11	CARBON 2.7K 5% 1/4W	
R3004	1-249-419-11	CARBON 1.5K 5% 1/4W	
R3005	1-249-417-11	CARBON 1K 5% 1/4W	
R3006	1-249-415-11	CARBON 680 5% 1/4W	
<SWITCH>			
S3004	1-571-731-11	SWITCH, TACTIL	
S3005	1-571-731-11	SWITCH, TACTIL	
S3006	1-571-731-11	SWITCH, TACTIL	
S3007	1-571-731-11	SWITCH, TACTIL	
S3008	1-571-731-11	SWITCH, TACTIL	

* A-1646-137-A HC BOARD, COMPLETE			

<CONNECTOR>			
CN3061	* 1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P	
CN3062	* 1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P	
<SWITCH>			
S3061	Δ 1-692-293-11	SWITCH, PUSH (AC POWER)(1 KEY)	

* A-1647-004-A U BOARD, COMPLETE			

<CAPACITOR>			
C2001	1-126-935-11	ELECT 470MF 20% 16V	
C2002	1-164-005-11	CERAMIC CHIP 0.47MF 25V	
C2007	1-126-967-11	ELECT 47MF 20% 16V	
C2008	1-126-965-11	ELECT 22MF 20% 50V	
C2009	1-164-005-11	CERAMIC CHIP 0.47MF 25V	
C2010	1-126-960-11	ELECT 1MF 20% 50V	
C2011	1-126-960-11	ELECT 1MF 20% 50V	
C2012	1-126-933-11	ELECT 100MF 20% 16V	
C2013	1-126-933-11	ELECT 100MF 20% 16V	
C2014	1-101-004-00	CERAMIC 0.01MF 50V	
C2015	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C2016	1-126-967-11	ELECT 47MF 20% 16V	
C2019	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C2020	1-126-967-11	ELECT 47MF 20% 16V	
C2021	1-126-965-11	ELECT 22MF 20% 50V	
C2022	1-126-960-11	ELECT 1MF 20% 50V	
C2023	1-101-004-00	CERAMIC 0.01MF 50V	
C2027	1-126-960-11	ELECT 1MF 20% 50V	
C2029	1-163-243-11	CERAMIC CHIP 47PF 5% 50V	
C2030	1-126-965-11	ELECT 22MF 20% 50V	
C2031	1-126-967-11	ELECT 47MF 20% 16V	
C2032	1-101-004-00	CERAMIC 0.01MF 50V	
C2033	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C2034	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C2036	1-126-967-11	ELECT 47MF 20% 16V	

REF. NO.	PART NO.	DESCRIPTION	REMARK
C2041	1-126-965-11	ELECT 22MF 20% 50V	
C2042	1-126-967-11	ELECT 47MF 20% 16V	
C2044	1-164-005-11	CERAMIC CHIP 0.47MF 25V	
C2045	1-164-005-11	CERAMIC CHIP 0.47MF 25V	
C2048	1-126-960-11	ELECT 1MF 20% 50V	
C2049	1-164-005-11	CERAMIC CHIP 0.47MF 25V	
C2051	1-126-960-11	ELECT 1MF 20% 50V	
C2062	1-126-933-11	ELECT 100MF 20% 16V	
C2067	1-101-004-00	CERAMIC 0.01MF 50V	
C2070	1-126-933-11	ELECT 100MF 20% 16V	
C2071	1-126-960-11	ELECT 1MF 20% 50V	
C2073	1-126-960-11	ELECT 1MF 20% 50V	
C2074	1-126-935-11	ELECT 470MF 20% 16V	
C2075	1-126-960-11	ELECT 1MF 20% 50V	
C2076	1-126-935-11	ELECT 470MF 20% 16V	
C2077	1-126-967-11	ELECT 47MF 20% 16V	
C2078	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C2079	1-126-960-11	ELECT 1MF 20% 50V	
C2081	1-126-967-11	ELECT 47MF 20% 16V	
C2082	1-126-967-11	ELECT 47MF 20% 16V	
C2083	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C2084	1-126-960-11	ELECT 1MF 20% 50V	
C2085	1-126-933-11	ELECT 100MF 20% 16V	
C2086	1-126-967-11	ELECT 47MF 20% 16V	
C2100	1-126-959-11	ELECT 0.47MF 20% 50V	
C2102	1-126-959-11	ELECT 0.47MF 20% 50V	
<CONNECTOR>			
CN2001	* 1-566-641-11	CONNECTOR, HINGE (TAB) 18P	
CN2002	* 1-566-641-11	CONNECTOR, HINGE (TAB) 18P	
CN2003	* 1-564-526-11	PLUG, CONNECTOR 11P	
CN2004	* 1-564-519-11	PLUG, CONNECTOR 4P	
CN2008	* 1-564-519-11	PLUG, CONNECTOR 4P	
<DIODE>			
D2001	8-719-110-12	DIODE RD9.1ESB1	
D2002	8-719-110-12	DIODE RD9.1ESB1	
D2003	8-719-110-12	DIODE RD9.1ESB1	
D2004	8-719-110-12	DIODE RD9.1ESB1	
D2005	8-719-110-12	DIODE RD9.1ESB1	
D2006	8-719-110-12	DIODE RD9.1ESB1	
D2007	8-719-110-12	DIODE RD9.1ESB1	
D2008	8-719-110-12	DIODE RD9.1ESB1	
D2009	8-719-110-12	DIODE RD9.1ESB1	
D2010	8-719-110-12	DIODE RD9.1ESB1	
D2011	8-719-110-12	DIODE RD9.1ESB1	
D2012	8-719-110-12	DIODE RD9.1ESB1	
D2013	8-719-110-12	DIODE RD9.1ESB1	
D2014	8-719-110-12	DIODE RD9.1ESB1	
D2015	8-719-110-12	DIODE RD9.1ESB1	
D2016	8-719-110-12	DIODE RD9.1ESB1	
D2017	8-719-110-12	DIODE RD9.1ESB1	
D2018	8-719-110-12	DIODE RD9.1ESB1	
D2019	8-719-110-12	DIODE RD9.1ESB1	
D2020	8-719-110-12	DIODE RD9.1ESB1	
D2021	8-719-110-12	DIODE RD9.1ESB1	
D2022	8-719-110-12	DIODE RD9.1ESB1	
D2023	8-719-110-12	DIODE RD9.1ESB1	
D2024	8-719-800-76	DIODE 1SS226	
D2027	8-719-110-12	DIODE RD9.1ESB1	
D2028	8-719-110-12	DIODE RD9.1ESB1	
D2030	8-719-110-12	DIODE RD9.1ESB1	
D2031	8-719-110-12	DIODE RD9.1ESB1	
D2032	8-719-110-12	DIODE RD9.1ESB1	
D2033	8-719-110-12	DIODE RD9.1ESB1	
D2034	8-719-110-12	DIODE RD9.1ESB1	
D2035	8-719-110-12	DIODE RD9.1ESB1	



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
D2036	8-719-403-00	DIODE MA3240-TX		R2024	1-216-022-00	METAL GLAZE 75	5% 1/10W
D2037	8-719-403-00	DIODE MA3240-TX		R2025	1-216-025-91	METAL GLAZE 100	5% 1/10W
D2038	8-719-110-12	DIODE RD9.1ESB1		R2028	1-216-053-00	METAL GLAZE 1.5K	5% 1/10W
D2039	8-719-110-12	DIODE RD9.1ESB1		R2029	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W
		<IC>		R2030	1-216-069-00	METAL GLAZE 6.8K	5% 1/10W
IC2001	8-752-068-46	IC CXA1855S		R2032	1-216-073-00	METAL GLAZE 10K	5% 1/10W
		<JACK>		R2033	1-216-025-91	METAL GLAZE 100	5% 1/10W
J2001	1-573-967-12	BLOCK, (S) TERMINAL		R2035	1-216-022-00	METAL GLAZE 75	5% 1/10W
J2002	1-573-968-11	BLOCK, (S) TERMINAL		R2036	1-216-025-91	METAL GLAZE 100	5% 1/10W
J2003	1-565-838-11	JACK BLOCK, PIN 2P		R2037	1-216-025-91	METAL GLAZE 100	5% 1/10W
		<CHIP CONDUCTOR>		R2038	1-216-101-00	METAL GLAZE 150K	5% 1/10W
JR001	1-216-295-91	CONDUCTOR, CHIP		R2039	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
JR002	1-216-295-91	CONDUCTOR, CHIP		R2041	1-216-025-91	METAL GLAZE 100	5% 1/10W
		<COIL>		R2044	1-216-025-91	METAL GLAZE 100	5% 1/10W
L2001	1-412-537-31	INDUCTOR 100UH		R2045	1-216-025-91	METAL GLAZE 100	5% 1/10W
		<TRANSISTOR>		R2046	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W
Q2006	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L		R2047	1-216-033-00	METAL GLAZE 220	5% 1/10W
Q2007	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L		R2049	1-216-101-00	METAL GLAZE 150K	5% 1/10W
Q2009	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L		R2050	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
Q2011	8-729-216-22	TRANSISTOR 2SA1162-G		R2051	1-216-025-91	METAL GLAZE 100	5% 1/10W
Q2014	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L		R2052	1-216-025-91	METAL GLAZE 100	5% 1/10W
Q2016	8-729-216-22	TRANSISTOR 2SA1162-G		R2053	1-216-049-91	METAL GLAZE 1K	5% 1/10W
Q2022	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L		R2056	1-216-049-91	METAL GLAZE 1K	5% 1/10W
Q2027	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L		R2057	1-216-033-00	METAL GLAZE 220	5% 1/10W
Q2028	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L		R2058	1-216-022-00	METAL GLAZE 75	5% 1/10W
Q2029	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L		R2060	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W
Q2030	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L		R2061	1-216-069-00	METAL GLAZE 6.8K	5% 1/10W
Q2031	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L		R2064	1-216-022-00	METAL GLAZE 75	5% 1/10W
Q2032	8-729-216-22	TRANSISTOR 2SA1162-G		R2066	1-216-073-00	METAL GLAZE 10K	5% 1/10W
Q2033	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L		R2073	1-216-022-00	METAL GLAZE 75	5% 1/10W
Q2034	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L		R2074	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
Q2035	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L		R2078	1-216-101-00	METAL GLAZE 150K	5% 1/10W
Q2036	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L		R2079	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
Q2038	8-729-216-22	TRANSISTOR 2SA1162-G		R2080	1-216-069-00	METAL GLAZE 6.8K	5% 1/10W
Q2039	8-729-027-23	TRANSISTOR DTA114EKA-T146		R2083	1-216-051-00	METAL GLAZE 1.2K	5% 1/10W
Q2040	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L		R2087	1-216-101-00	METAL GLAZE 150K	5% 1/10W
Q2041	8-729-027-23	TRANSISTOR DTA114EKA-T146		R2088	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
Q2043	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L		R2089	1-216-051-00	METAL GLAZE 1.2K	5% 1/10W
		<RESISTOR>		R2090	1-216-025-91	METAL GLAZE 100	5% 1/10W
R2001	1-216-113-00	METAL GLAZE 470K	5% 1/10W	R2092	1-216-025-91	METAL GLAZE 100	5% 1/10W
R2002	1-216-113-00	METAL GLAZE 470K	5% 1/10W	R2096	1-216-022-00	METAL GLAZE 75	5% 1/10W
R2003	1-216-022-00	METAL GLAZE 75	5% 1/10W	R2097	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W
R2004	1-216-022-00	METAL GLAZE 75	5% 1/10W	R2104	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W
R2005	1-216-025-91	METAL GLAZE 100	5% 1/10W	R2114	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W
R2006	1-216-025-91	METAL GLAZE 100	5% 1/10W	R2116	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R2007	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W	R2119	1-216-022-00	METAL GLAZE 75	5% 1/10W
R2009	1-247-807-31	CARBON 100	5% 1/4W	R2122	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R2010	1-216-025-91	METAL GLAZE 100	5% 1/10W	R2123	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R2012	1-216-025-91	METAL GLAZE 100	5% 1/10W	R2125	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R2013	1-216-022-00	METAL GLAZE 75	5% 1/10W	R2126	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R2014	1-216-025-91	METAL GLAZE 100	5% 1/10W	R2127	1-216-025-91	METAL GLAZE 100	5% 1/10W
R2015	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W	R2128	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R2016	1-216-295-91	CONDUCTOR, CHIP		R2129	1-216-025-91	METAL GLAZE 100	5% 1/10W
R2019	1-216-025-91	METAL GLAZE 100	5% 1/10W	R2130	1-216-021-00	METAL GLAZE 68	5% 1/10W
R2020	1-216-025-91	METAL GLAZE 100	5% 1/10W	R2131	1-216-025-91	METAL GLAZE 100	5% 1/10W
R2023	1-216-049-91	METAL GLAZE 1K	5% 1/10W	R2132	1-216-021-00	METAL GLAZE 68	5% 1/10W
				R2133	1-216-113-00	METAL GLAZE 470K	5% 1/10W
				R2134	1-216-113-00	METAL GLAZE 470K	5% 1/10W
				R2135	1-216-025-91	METAL GLAZE 100	5% 1/10W
				R2136	1-216-033-00	METAL GLAZE 220	5% 1/10W
				R2137	1-216-025-91	METAL GLAZE 100	5% 1/10W
				R2138	1-216-049-91	METAL GLAZE 1K	5% 1/10W
				R2139	1-216-049-91	METAL GLAZE 1K	5% 1/10W
				R2140	1-216-174-00	METAL GLAZE 100	5% 1/8W
				R2141	1-216-184-00	METAL GLAZE 270	5% 1/8W
				R2142	1-216-033-00	METAL GLAZE 220	5% 1/10W
				R2143	1-216-021-00	METAL GLAZE 68	5% 1/10W
				R2144	1-216-113-00	METAL GLAZE 470K	5% 1/10W

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REF. NO.	PART NO.	DESCRIPTION	REMARK
R2145	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R2146	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R2147	1-216-176-11	METAL GLAZE 120	5% 1/8W
R2148	1-216-295-91	CONDUCTOR, CHIP	
R2149	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R2150	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R2151	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R2152	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R2153	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R2154	1-216-041-00	METAL GLAZE 470	5% 1/10W
R2155	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R2156	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R2157	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R2158	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R2159	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R2162	1-216-083-00	METAL GLAZE 27K	5% 1/10W
R2164	1-216-097-91	METAL GLAZE 100K	5% 1/10W
R2165	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R2166	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R2167	1-216-041-00	METAL GLAZE 470	5% 1/10W
R2173	1-216-023-00	METAL GLAZE 82	5% 1/10W
R2179	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R2180	1-216-022-00	METAL GLAZE 75	5% 1/10W
R2181	1-216-041-00	METAL GLAZE 470	5% 1/10W
R2189	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R2190	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R2195	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R2196	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R2218	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R2219	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R2220	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R2221	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R2222	1-216-022-00	METAL GLAZE 75	5% 1/10W
<SWITCH>			
S2001	1-572-084-11	SWITCH, SLIDE	
<TERMINAL BOARD>			
TB2001	1-537-712-11	TERMINAL, PUSH	

MISCELLANEOUS			

Δ 1-223-925-11 RESISTOR ASSY (HIGH-VOLTAGE)			
1-251-249-11 DISTRIBUTOR, RF			
Δ 1-452-790-11 NECK ASSY			
Δ 1-452-790-21 NECK ASSY			
1-505-703-11 SPEAKER (SCM)			

REF. NO.	PART NO.	DESCRIPTION	REMARK
	1-505-704-11	SPEAKER (16CM)	
	* 1-555-400-00	CABLE, PIN	
	1-569-008-11	ADAPTOR, CONVERSION 2P (KP-E61MH11(ME)/KP-E61MN11)	
Δ	1-574-358-11	CORD, POWER (WITH CONNECTOR) 7.5A/250V (KP-E61SN11)	
Δ	1-690-270-21	CORD, POWER (WITH CONNECTOR) 2.5A/250V (KP-E61MH11(ME)/KP-E61MN11)	
Δ	1-769-609-21	CORD, POWER (WITH CONNECTOR) (KP-E61MH11(HK))	
	1-900-902-58	CONNECTOR ASSY (KP-E61MH11(ME)/KP-E61MN11/KP-E61SN11)	
	1-900-902-67	CONNECTOR ASSY (KP-E61MH11(ME)/KP-E61MN11/KP-E61SN11)	
	1-900-902-68	CONNECTOR ASSY (KP-E61MH11(ME)/KP-E61MN11/KP-E61SN11)	
	1-900-902-69	CONNECTOR ASSY (KP-E61MH11(ME)/KP-E61MN11/KP-E61SN11)	
Δ	8-451-463-12	DEFLECTION YOKE Y829PA2N (R) (G)	
Δ	8-451-463-22	DEFLECTION YOKE Y829PA2N2 (B)	
Δ	8-598-955-11	BLOCK ASSY, HIGH-VOLTAGE	
Δ	8-733-507-05	PICTURE TUBE 07MAC4(B)	
Δ	8-733-508-05	PICTURE TUBE 07MAC4(R)	
Δ	8-733-509-05	PICTURE TUBE 07MAC2 (G)	

ACCESSORIES AND PACKING MATERIALS			

	1-569-008-11	ADAPTOR, CONVERSION 2P (KP-E61MH11(ME)/KP-E61MN11)	
	3-858-447-11	MANUAL, INSTRUCTION	
	* 4-030-895-01	JOINT	
	* 4-055-673-01	SHEET, PROTECTION	
	4-058-951-01	CUSHION (UPPER) (ASSY) (KP-E61MH11(HK))	
	4-058-952-01	CUSHION (LOWER) (ASSY) (KP-E61MH11(HK))	
	4-058-953-01	CUSHION (LEFT UPPER) (KP-E61MH11(HK))	
	4-058-954-01	CUSHION (RIGHT UPPER) (KP-E61MH11(HK))	
	4-058-955-01	CUSHION (LEFT LOWER) (KP-E61MH11(HK))	
	4-058-956-01	CUSHION (RIGHT LOWER) (KP-E61MH11(HK))	
	4-058-957-01	INDIVIDUAL CARTON (KP-E61MH11(HK))	
	4-058-958-01	TRAY (KP-E61MH11(HK))	
	4-058-959-01	BOARD, TOP (KP-E61MH11(HK))	
	4-058-960-01	BOARD, BOTTOM (KP-E61MH11(HK))	
	* 4-059-461-01	BAG, PROTECTION	

REMOTE COMMANDER			

	1-473-841-11	REMOTE COMMANDER (RM-901)	
	9-905-614-01	POCKET, COVER (FOR RM-901)	

KP-E61MH11/E61MN11/E61SN11

RM-901

RM-901

RM-901

Sony Corporation

Display Company

Quality Assurance Department

Service Promotion Section

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